

OCTOBER 20, 1945

# Railway Age

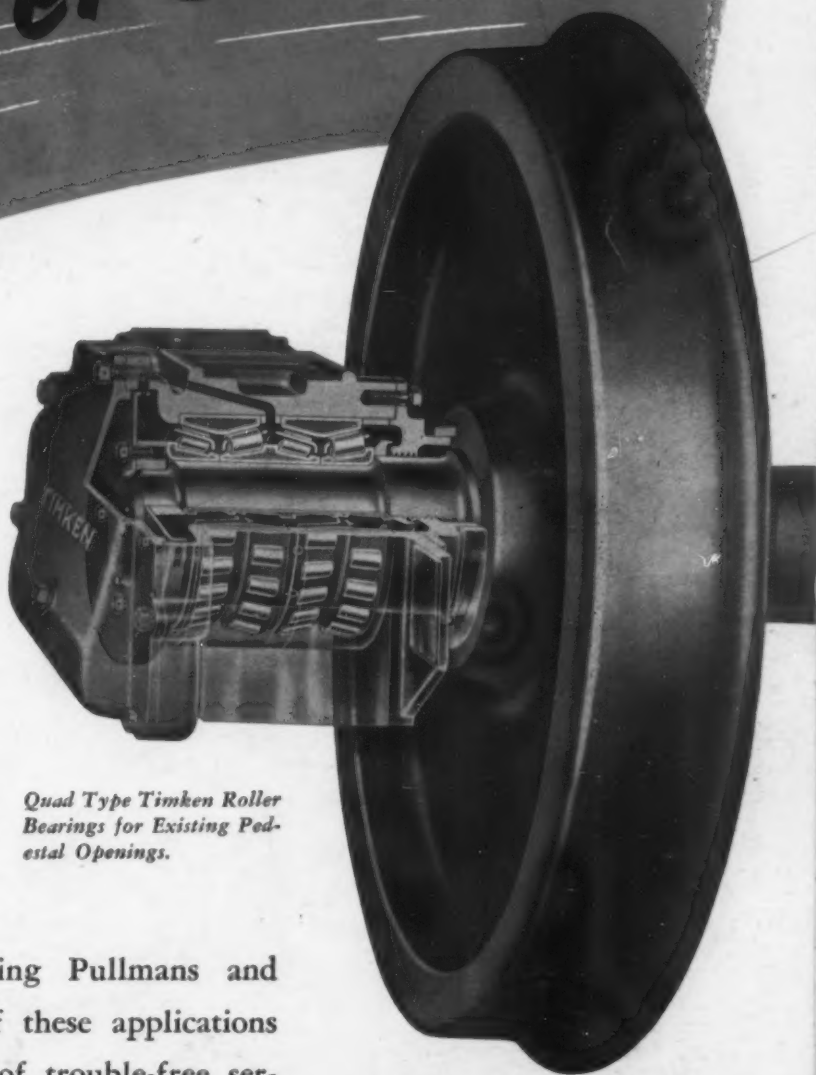
Founded in 1856

*For Faster Service*

Timken Roller Bearings remove all speed restrictions as far as bearings are concerned; simplify and economize lubrication; increase equipment availability; and decrease maintenance cost.

Thousands of Timken Bearings are now in service under passenger equipment cars — including Pullmans and all types of locomotives. Many of these applications have given over 1,000,000 miles of trouble-free service to date.

THE TIMKEN ROLLER BEARING COMPANY, CANTON 6, OHIO

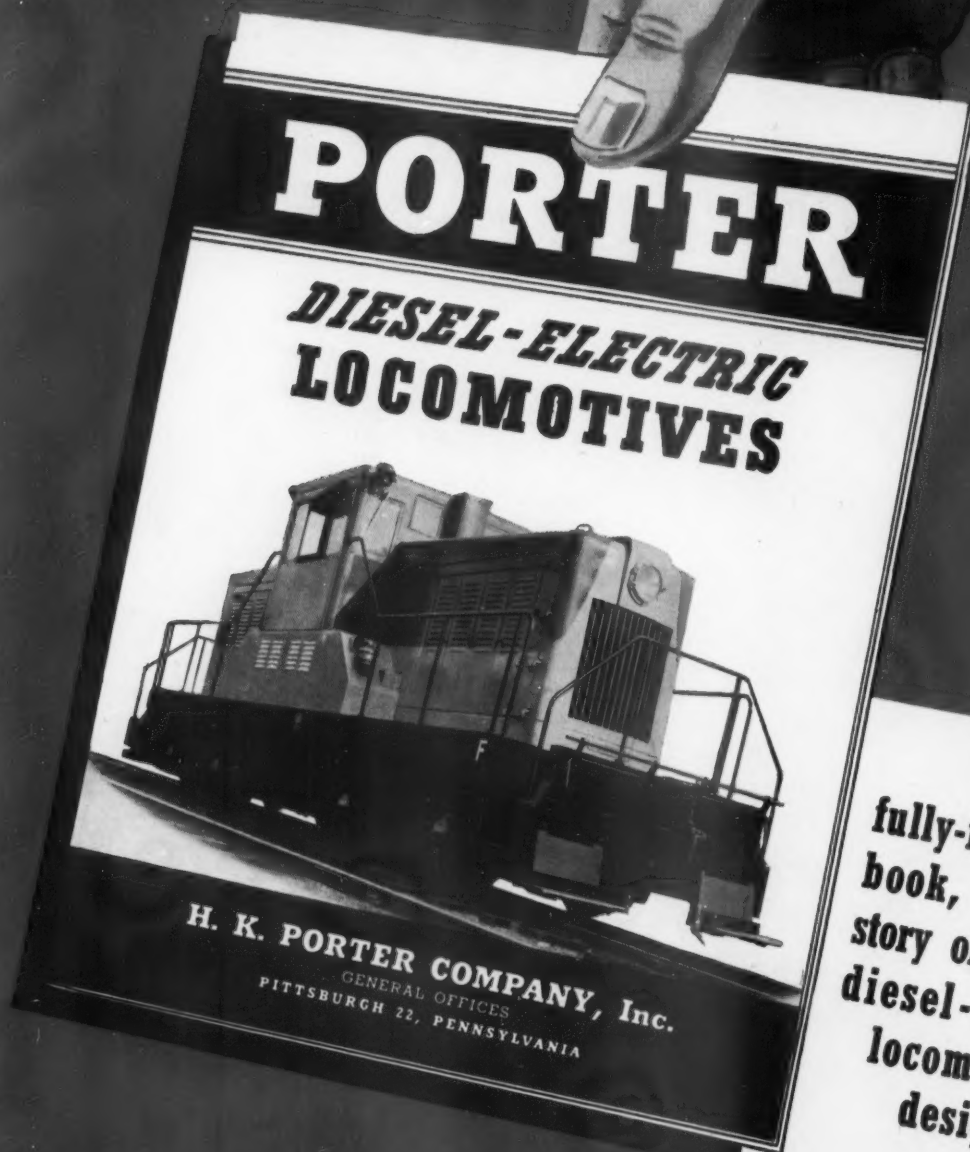


*Quad Type Timken Roller Bearings for Existing Pedestal Openings.*

**TIMKEN**  
TRADE-MARK REG. U. S. PAT. OFF.  
**RAILWAY ROLLER BEARINGS**



What's *New*  
in Diesel-Electrics?



New  
fully-illustrated  
book, tells the  
story of modern  
diesel-electric  
locomotive  
design

44 pages of factual information about the design, construction, and operation of Porter "Custom-Built" Diesel Electric Locomotives. The book gives detailed descriptions of many design features, and specifications of these highly efficient switching units in sizes from 30 to 100 tons. It's yours for the asking. A note on your letter-head will bring you a copy.



**H. K. PORTER COMPANY, Inc.**

PITTSBURGH 22, PENNSYLVANIA

FACTORIES: PITTSBURGH, PA. • BLAIRSVILLE, PA. • McKEESPORT, PA.  
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# MINER

## *Friction Draft Gears*

STURDY IN CONSTRUCTION

POSITIVE IN ACTION

ABSOLUTELY RELIABLE



**W. H. MINER, INC. CHICAGO**

## These are the essentials of

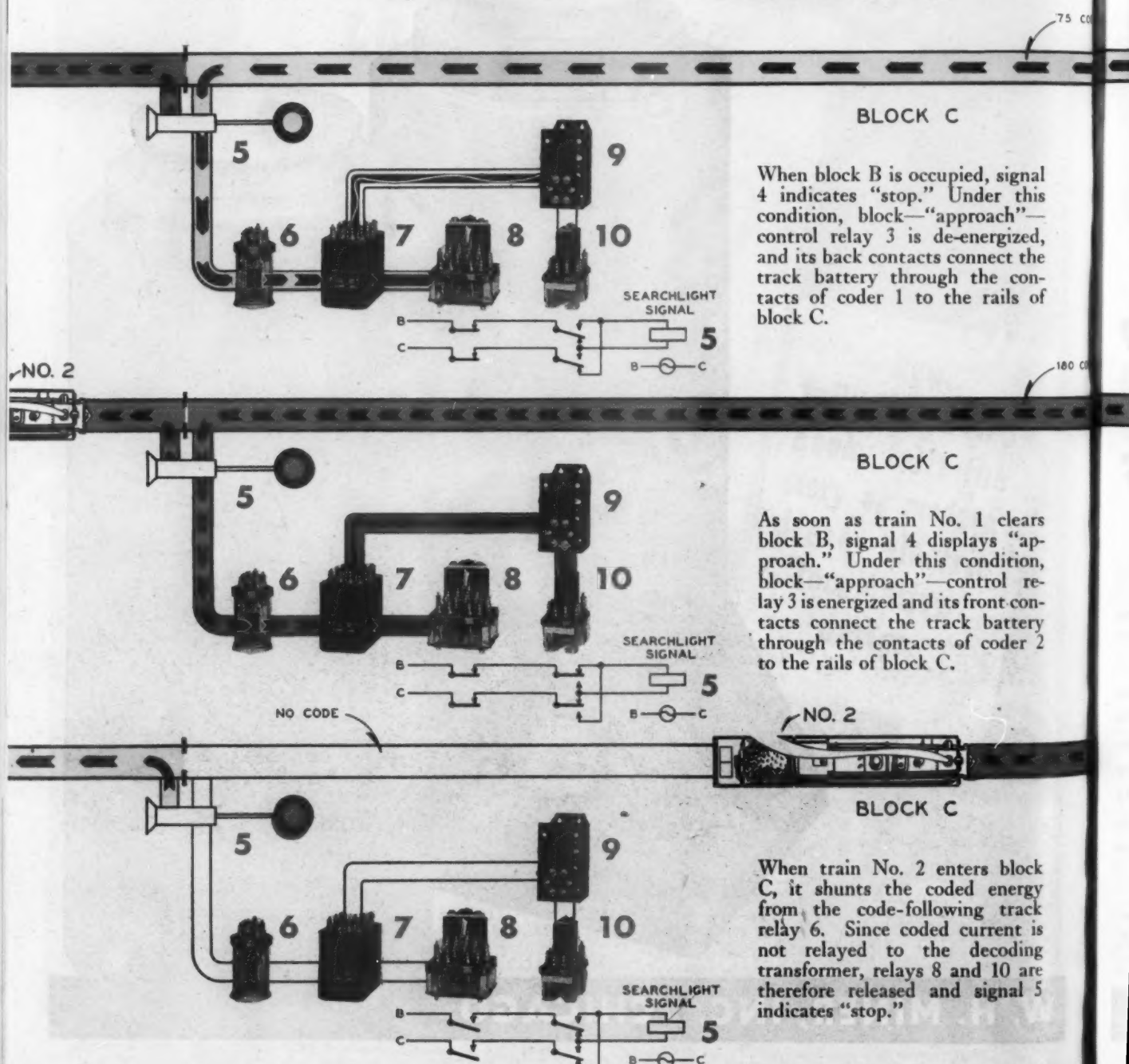
# "UNION"

For more than half a century, the steady-energy track circuit contributed to railroad safety and operating efficiency by providing a medium through which wayside signals or other safety devices could dependably indicate the presence or absence of operating hazards.

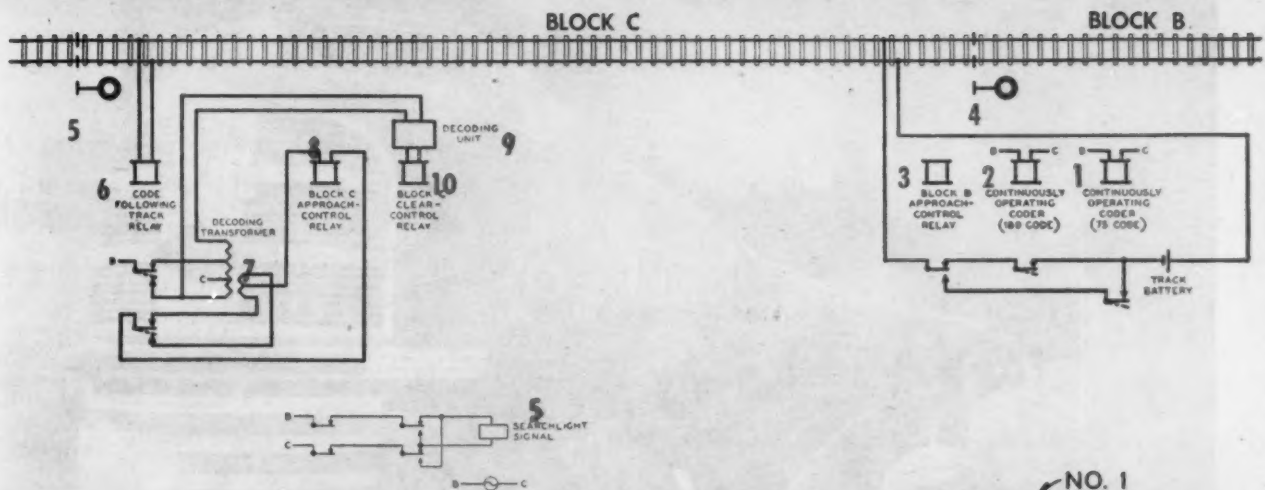
In 1933, "Union" introduced the *coded* track circuit, retaining the functions

of the steady-energy circuit, but having certain marked advantages such as, (1) greater shunting sensitivity, (2) greater immunity to false operation by foreign currents, (3) greater circuit length without the use of cut sections.

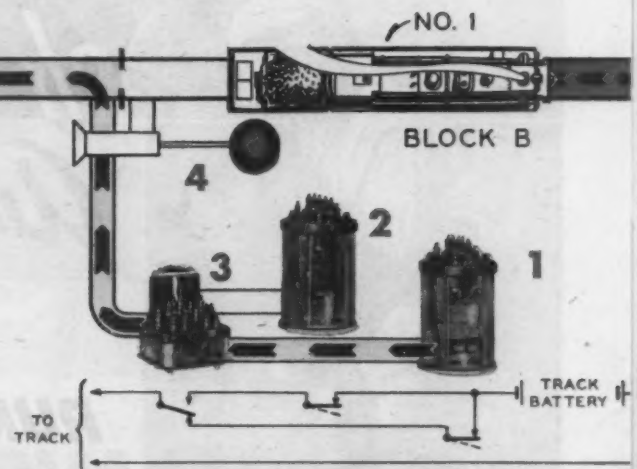
The diagrams on these pages show the essential parts for the coded control of 3-indication signaling.



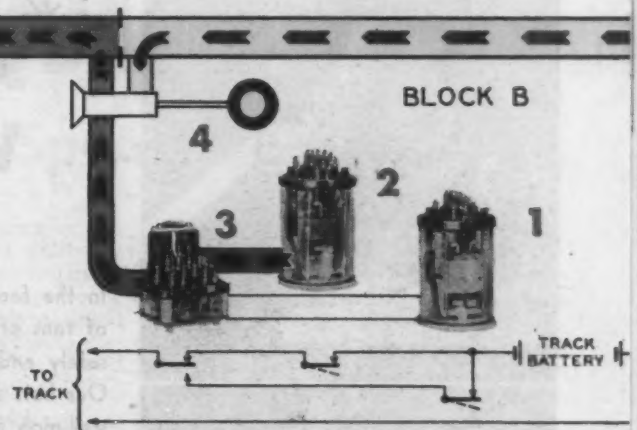
# CODED TRACK CIRCUIT CONTROL



As a result, "approach" 75-code is transmitted through the rails of unoccupied block C, causing the code-following track relay 6 to operate 75 times per minute in response to the coded energy. "Approach" 75-code is relayed to the decoding transformer 7 which, in turn, supplies energy only to block—"approach"—control relay 8. Therefore, signal 5 displays "approach."



With block C still unoccupied, the code-following track relay is operated 180 times per minute and relays "clear" 180-code to the decoding transformer 7. Since the block—"approach"—control relay responds to either "approach" 75 code or "clear" 180 code, both it and the block—"clear"—control relay are energized, causing signal 5 to display a "proceed" indication.



For full information on "Union" Coded Track Circuit Control, consult our nearest district office or write for "Union" Bulletin No. 157.

**UNION SWITCH & SIGNAL COMPANY**

Swissvale,

Pennsylvania

NEW YORK • CHICAGO

ST. LOUIS • SAN FRANCISCO



ILLINOIS CENTRAL



*of*

*America's Crack Trains*

**4 out of 5**

**RUN ON TRACK MAINTAINED**

*with*

**JACKSON**

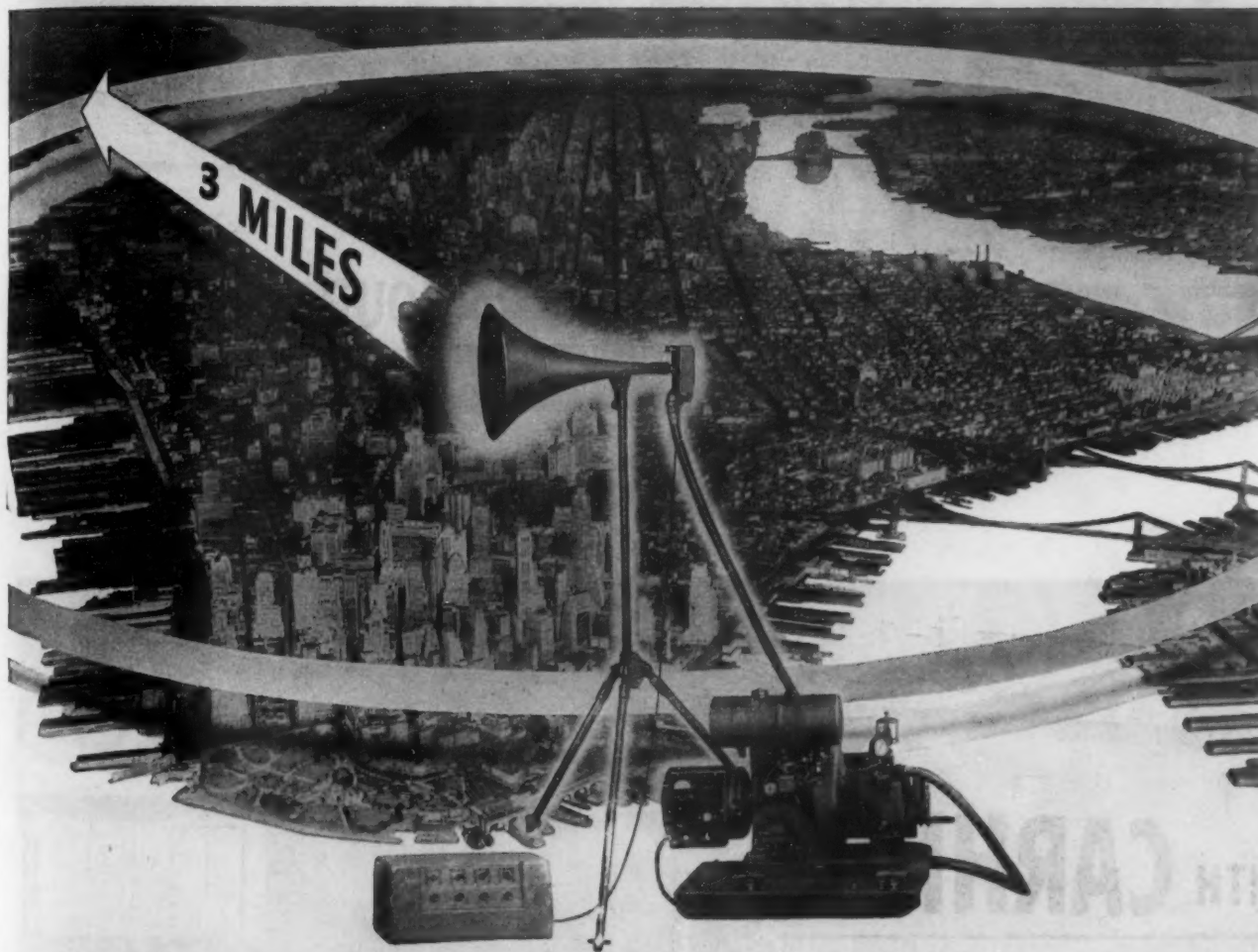
**VIBRATORY** *Tampers*



In the face of labor shortage, terrific traffic, and the pounding of millions of tons of essential freight, it takes heroic doing to maintain track that will safely and comfortably sustain the high speed of America's Crack Trains. Our hats are off to the Maintenance Engineers and Trackmen for doing the well-nigh impossible. That the vast majority of them have used JACKSON VIBRATORY TAMPERS and PORTABLE POWER UNITS in this great accomplishment is a source of real satisfaction to us and sound evidence that in the opinion of the leaders, they constitute the medium for doing the best possible job in the shortest possible time. Let us send you the complete facts concerning JACKSON VIBRATORY TAMPERS & POWER UNITS and how to use them to best advantage.

▶ The JACKSON WS-6 . . . a light-weight, easily portable and highly dependable Power Unit with capacity for operating 4 Tampers; Floodlights and B&B tools. The "WS-6" will serve 8 Tampers and is still a very easily maneuverable Power Unit.

**ELECTRIC TAMPER & EQUIPMENT CO., Ludington, Michigan**



# COVERAGE — 28 SQUARE MILES!

## Only the G-E Super-Aire Speaker Can Do It

A NEW, powerful voice in industry is now available. It's the G-E Super-Aire speaker with a range of three miles, for use in far-flung operations where you want action . . . coordinated action . . . immediate action.

It can be used in such widely diversified fields as: railroading, construction projects, surface mining, ranching, harbor control, public utilities, highways, motion picture directing, airports, etc.

Amplified sound is provided through air pressure in such volume that it cuts through surrounding noise, wind, and air resistance with razor-edge sharpness; sound in such volume that clear, intelligible speech can be

delivered to a point three miles distant. Instructions can be delivered without miles of communication lines. The Super-Aire speaker can also be used in locations where conventional and complicated public address systems, much more expensive, would otherwise have to be installed.

Its simplicity and economy will appeal to those whose operations cover vast areas. Four basic elements, horn and driver unit, air compressor, power supply, audio amplifier—all built for hard usage—provide a completely portable system. The required audio input of less than 25 watts is all that is needed to step up the

sound level to its peak output.

The Super-Aire speaker is rugged right down to the voice element, which will not fracture, even if subjected to terrific shocks and vibration.

Write for complete information to: *Electronics Department, Specialty Division, General Electric Company, Syracuse, New York.*

*See your G-E distributor for Universal Radio Parts, P. A. Systems, Crystals, Receiving, Industrial and Transmitting Tubes, Laboratory and Service Test Equipment.*

**GENERAL  ELECTRIC**

100-01

Electronics Department  
General Electric Company  
Syracuse, New York

We are interested in further information concerning the G-E Super-Aire speaker for ☐ Our own use ☐ Resale Distribution

Name.....

Company.....

Address.....

RA-10



*Give Your*



*a COLOR*

**IN THEY GO** to the paint shop—veterans of strenuous wartime service—faded, shabby-looking cars that are long overdue for a “facial.”

**There they get** a beauty treatment with Pittsburgh Carhide and are re-finished completely in twenty-four hour cycles, ready for stenciling, after overnight drying!

**Out they come** in bright, attractive colors, good for thousands of miles of advertising that builds prestige all along the line.

**PITTSBURGH  
STANDS FOR  
QUALITY PAINT  
AND GLASS**



**PITTS**  
**PITTSBURGH PLATE**





## *Rolling Stock*



## **TREATMENT Overnight!**

In addition to its remarkable ease of application and quick drying qualities, Carhide provides a glass-smooth, extra-durable surface that stays *live*, tough and elastic—resists cracking and peeling caused by extremes of temperatures—retains its brilliant gloss and readily withstands repeated washings and scrubbing.

**PITTSBURGH RAILWAY FINISHES**, available for a wide variety of applications, include Carhide for all types of freight equipment,

Stationhide for stations, Ironhide for bridges, and Lavax Synthetic Finishes for passenger cars and locomotives. Call on us for expert advisory service. Our extensive experience in the field can often save you time and money.

. . .

PITTSBURGH PLATE GLASS COMPANY, Industrial Paint Division, Pittsburgh, Pa. Factories: Milwaukee, Wis.; Newark, N. J.; Houston, Texas; Los Angeles, Calif.; Portland Ore. Ditzler Color Division, Detroit, Mich. The Thresher Varnish Co., Dayton, Ohio.

# BURGH PAINTS

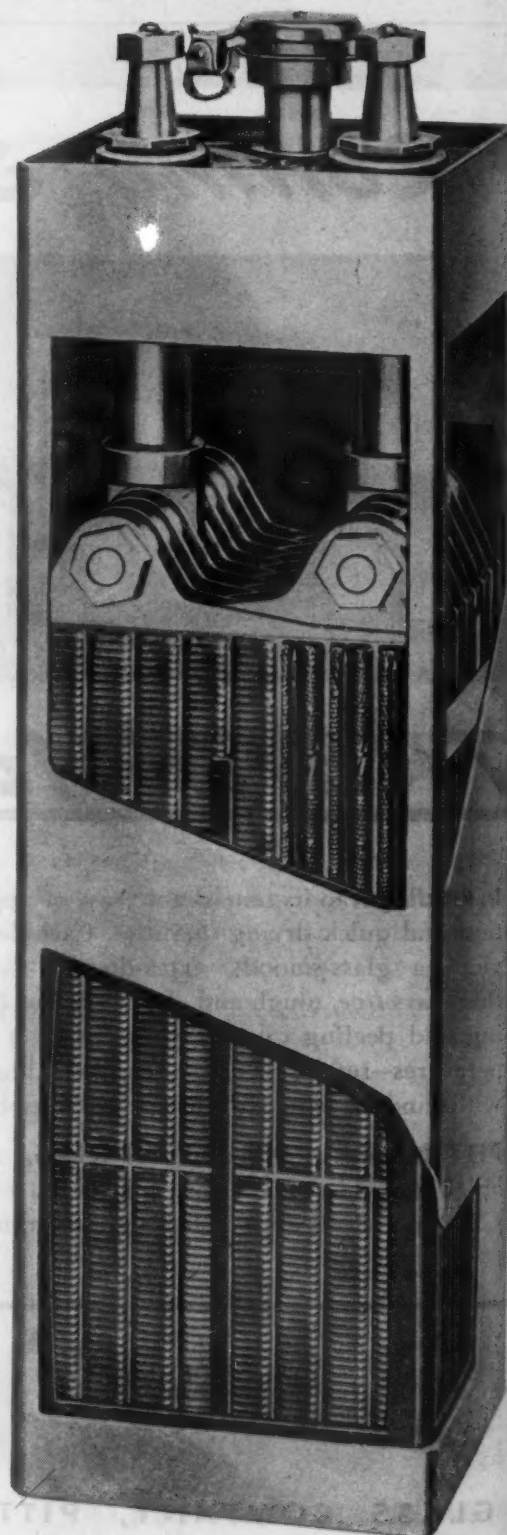
GLASS COMPANY, PITTSBURGH, PA. — RAILWAY FINISHES

# STRONGEST *yet* LIGHTTEST

HERE is a cut-a-way view of a single cell of a typical Edison Alkaline Battery for railway passenger car service. Note its construction. It is entirely different from the cell construction employed in other types of storage batteries. The container, cover, pole pieces and other structural parts of the cell are *all* made of STEEL. Even the active materials are permanently locked in perforated STEEL tubes and pockets. These in turn are securely assembled into STEEL grids to form the positive and negative plates. The STEEL cover is welded onto the container. The result is high mechanical strength.

Yet alkaline batteries are also the lightest of all types of batteries available for railway passenger car lighting and air conditioning service. In fact, they are one of the few car accessories in which it is possible to save weight and gain structural strength at the same time. *Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, N. J.*

**Edison**  
ALKALINE BATTERIES



**ALUM**  
METAL O

IN THE  
DOV  
DEH

**EDWA**  
THE EYES





WAY ACE

# ALUMINUM...

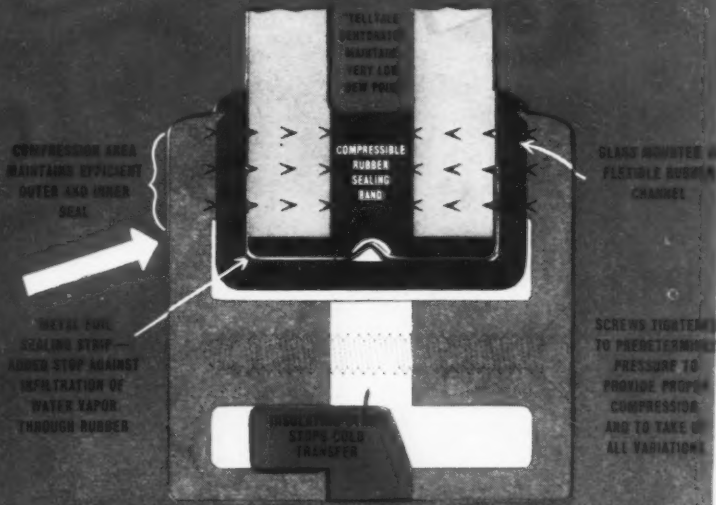
METAL OF THE FUTURE

The utilization of aluminum and its alloys has made possible the giant airplanes of today... will make possible the still larger airliners of tomorrow.

## IN THE NEW EDWARDS DOUBLE SEALED DEHYDRATED SASH



**EDWARDS SASH**  
THE EYES OF TRANSPORTATION



For modern, streamlined design, attractive appearance, lightness with strength and all around adaptability, frames of the new EDWARDS Double Sealed Dehydrated Sash are constructed of aluminum... "metal of the future."

In these new postwar "eyes of transportation," EDWARDS designed and engineered features have kept pace with the development of modern materials. The result is the new EDWARDS Double Sealed Dehydrated Sash—a sash which combines the advantages of NO FOG—NO FILM—NO FROST; meets every requirement of modern coach design and brings to your passengers new standards of travel comfort and convenience. Send for complete information.

O. M. EDWARDS COMPANY, INC. SYRACUSE, N. Y.



SASH FOR EVERY TYPE OF TRANSPORTATION—ON LAND, ON THE SEAS, IN THE

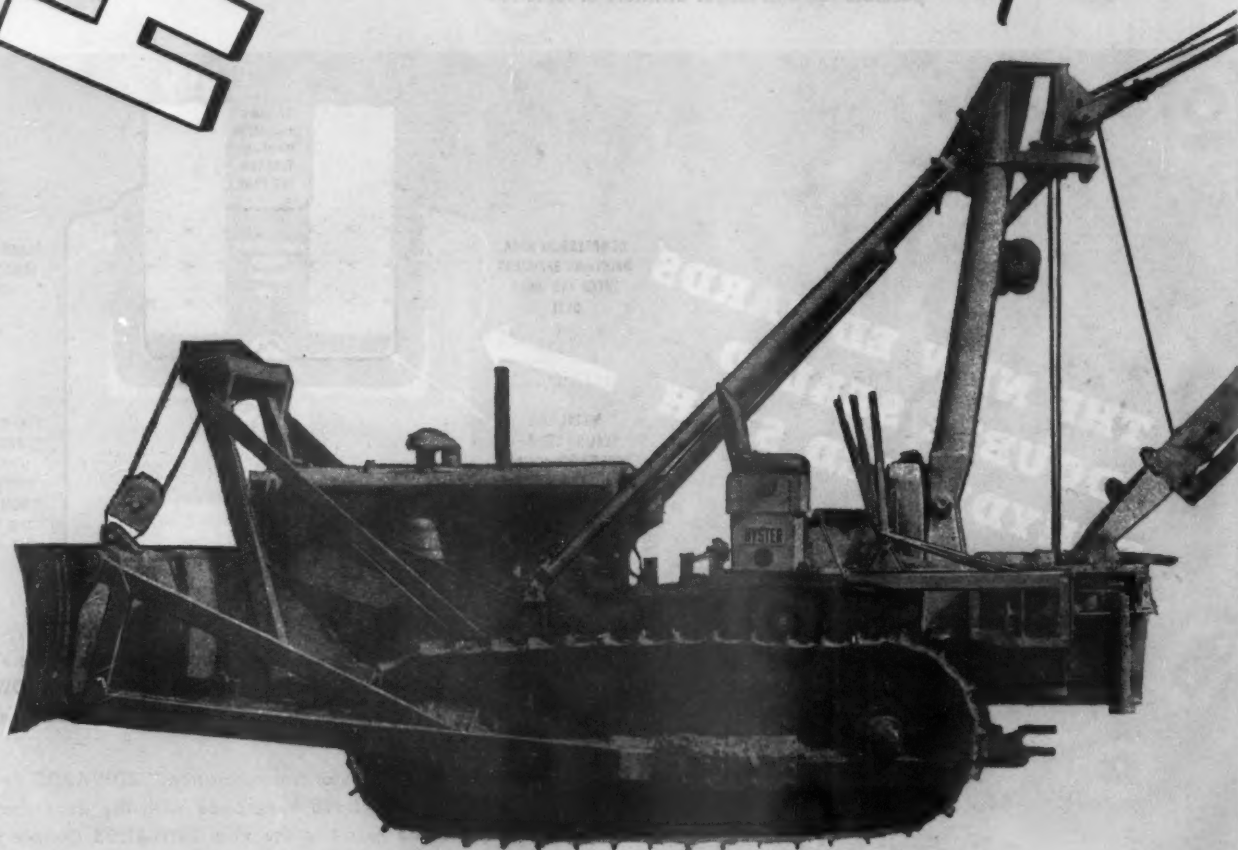
**HYSTER** proudly presents the



# HYSTIAWAY

**A DRAGLINE, CLAMSHELL  
AND CRANE COMBINATION  
for use with Track-Type  
Tractor and Bulldozer...**

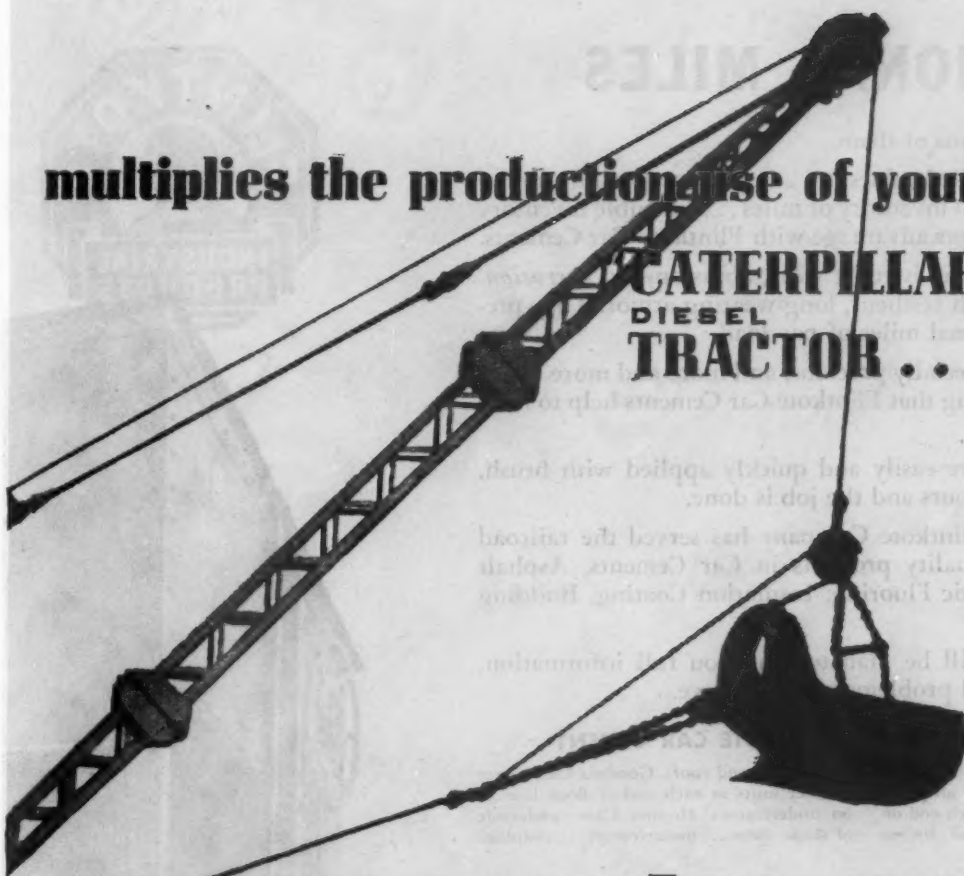
*All in One Working Unit*



**Sold and serviced by "Caterpillar" dealers  
and distributors throughout the world.**



# multiplies the production use of your "CATERPILLAR" DIESEL TRACTOR . . .



**SIZES.** Available for "Caterpillar" models D6, D7, D8.

**DRAGLINE AND CLAMSHELL.** Handles (on a D7) 1/2 cu. yd. dragline bucket; 3/8 cu. yd. digging clamshell or 1/2 yd. rehandling clamshell. Other models in proportionate capacities.

**CRANE.** Swinging live boom, with maximum lifting capacities in any position.

**MOUNTING.** On in 2 hours (with 2 men); off in 1 hour.

**MOBILITY.** Full tractor mobility is retained. Crawler track oscillation is not impeded. Tractor rigidity when desired is accomplished by crank control at masthead.

**OPERATION.** Conventional shovel and crane controls. 240° swing at speed of 4.5 RPM.

**THIS** is the most important product announcement Hyster Company has made in the 16 years we have specialized in building tractor equipment.

The addition of a Hystaway to a "Caterpillar" track-type tractor gives you *one piece* of production machinery that combines tractor — bulldozer — dragline, clamshell and crane.

Back of Hystaway lies the best engineering skill in the tractor equipment business . . . Years of field tests in various sections—under all working conditions—have proved Hystaway's performance, stamina and versatility.



## READY FOR YOU . . .

A completely illustrated booklet on Hystaway—how it's built—what it does—how it does it. Write for your copy.

**HYSTER COMPANY** 2932 N.E. Clackamas, Portland 8, Ore.  
1832 North Adams, Peoria 3, Illinois

# Spray on

## ADDITIONAL MILES

Miles and miles . . . millions of them.

Basically that's a railroad's business . . . buying and selling miles. Rolling stock represents an inventory of miles . . . a flexible inventory that can be stretched to your advantage with Flintkote Car Cements.

These asphalt-base compounds resist wear, abrasion and *corrosion*. They "plate" surfaces with resilient, long-wearing armor. They preserve strength for additional miles of pay load.

Today those miles are especially precious, and more and more maintenance men are discovering that Flintkote Car Cements help to keep cars out of the shop.

Flintkote Car Cements are easily and quickly applied with brush, trowel or spray . . . few hours and the job is done.

For over 40 years The Flintkote Company has served the railroad industry by supplying quality products in Car Cements, Asphalt Protective Coatings, Mastic Flooring, Insulation Coating, Building Materials.

Our Railway Division will be glad to send you full information, or to study any individual problems you may have.

### TYPICAL APPLICATIONS OF FLINTKOTE CAR CEMENT

Underframes—all types of freight cars. Box Cars—outside roof . . . ends (side and end posts) . . . over coupler units at each end of floor line . . . inside, under wood lining

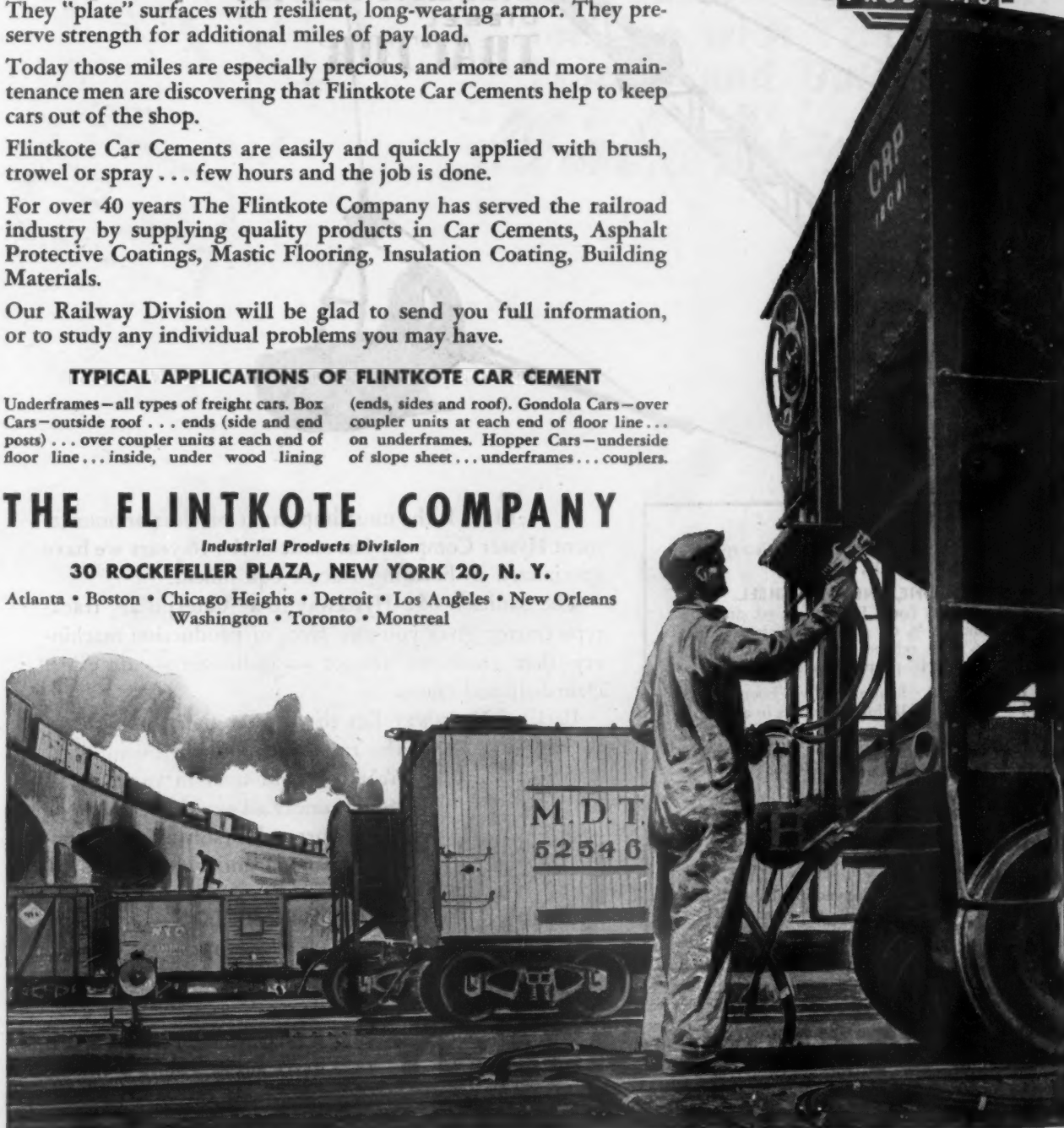
(ends, sides and roof). Gondola Cars—over coupler units at each end of floor line . . . on underframes. Hopper Cars—underside of slope sheet . . . underframes . . . couplers.

## THE FLINTKOTE COMPANY

Industrial Products Division

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

Atlanta • Boston • Chicago Heights • Detroit • Los Angeles • New Orleans  
Washington • Toronto • Montreal



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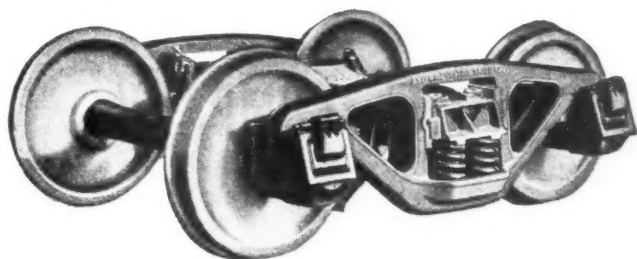
RAILWAY AGE

More than 50,000  
closely charted miles  
of performance testing  
and over forty years of  
design, development, and  
production experience are  
combined in the A.S.F.  
Ride-Control Truck (A-3)\*

MINT-MARK OF  FINE CAST STEEL

\*The modern truck for every  
type of freight service at any  
speed and under all loads.

A.S.F. *Ride-Control* TRUCK



LONG SPRING TRAVEL • CONSTANT FRICTION CONTROL

AMERICAN  
STEEL  
FOUNDRIES  
CHICAGO

# Special Delivery



An ample supply of Griffin Chilled Wheels and twelve plants specially located for customer convenience make special delivery of Griffin Wheels a certainty. The speed with which Griffin Chilled Wheels arrive where you want them is a definite help in assisting your railroad to "keep 'em rolling." This is just as true now in the difficult days of reconversion as it was in the trying days of war.

For good service, send your order in now for a "special delivery" of Griffin Chilled Wheels.

#### PLANTS

Tacoma  
Salt Lake City  
Denver  
Los Angeles  
Council Bluffs  
Kansas City

Detroit  
Chicago  
Boston  
Cleveland  
Cincinnati  
St. Paul

## GRIFFIN

### WHEEL COMPANY

410 N. MICHIGAN AVE.

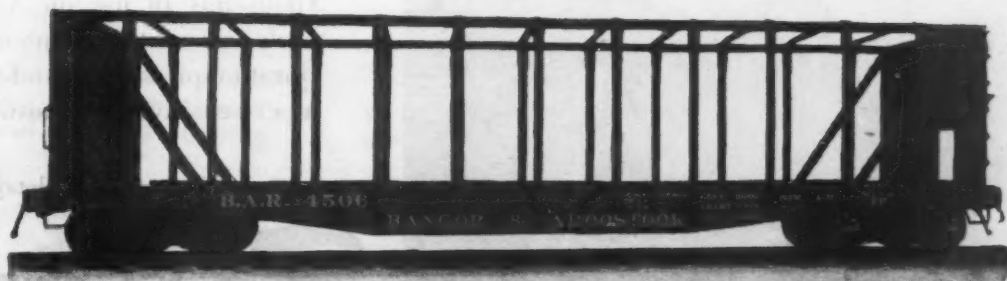
Chicago 11, Illinois



# Magor

**DESIGNERS AND  
MANUFACTURERS  
of Freight Cars  
of All Types  
Including Air  
Dump Cars**

Special revenue traffic originations confronting many railroads require study and solution. We will welcome the opportunity of cooperating with you.



**MAGOR CAR CORPORATION**

50 Church Street

New York 7, N. Y.

Ask The Men in The Cab...

Ask the conductor, the crew...  
they'll all tell you

## The *Fenwal* Railway Journal Box Thermoswitch Alarm

- reduces delays — saves untold running hours — speeds shipments — saves tie-ups and "set-offs" — by sounding a warning signal in the engine cab when temperature rises to a danger point in the journal box indicating a hot-box may ensue!



Thousands in use on American railroads prove the efficiency of this sturdy, vibration-proof, dust-and-vapor sealed! super-sensitive Thermoswitch!

Write for full details to

***Fenwal*, Inc.**

**THERMOSWITCHES**  
**FOR COMPLETE TEMPERATURE CONTROL**

45 Pleasant Street, Ashland, Massachusetts

# ANEMOSTAT

...the "business-end" of Air-Conditioning!

**"NO AIR-CONDITIONING SYSTEM IS BETTER THAN ITS AIR DISTRIBUTION".**

When large volumes of conditioned air are forced into the interior of a railroad car, drafts occur—unless ANEMOSTATS are used. The patented ANEMOSTAT is an air-diffusing device without moving parts. It is easily installed on any air-conditioning, ventilating, or hot-air heating system on railroad cars. It assures draftless distribution of any volume of cooled or heated air at any velocity.

During the last 25 years more than 50,000 installations throughout the world have proven that efficient air-distribution is synonymous with ANEMOSTAT—the "business-end" of air-conditioning!

## HERE IS HOW IT WORKS

The ANEMOSTAT diffuser creates a series of air currents flowing away from the device in planes or blankets at scientifically correct angles. In addition, the ANEMOSTAT creates a series of counter-currents of secondary-air which are siphoned into the diffuser and mixed with the incoming air

streams. Thus, 35% of car-air is pre-mixed with the incoming cooled or heated air before the latter is discharged into the car. This action is the only true "Aspiration" — and it is exclusive with ANEMOSTAT!

This air-mixing action within the ANEMOSTAT establishes the required car-temperature at a point well above the breathing level—so no blasts of hot or cold air are encountered by the passengers. Higher temperature differentials are thereby possible . . . resulting in smaller volumes of air requiring conditioning.

Higher air-velocities may be employed with the ANEMOSTAT because of its draftless diffusion, so smaller ducts and simplification of duct layouts naturally follow. Yes, ANEMOSTAT is the "business-end" of air conditioning!

Write today for Bulletin which gives you full details. There's no obligation!

AC-1010



**Veteran-ize your personnel!**  
Many discharged war veterans received valuable technical and specialized training. Always consider veterans when you employ. They did their share — now let's all do ours!

# ANEMOSTAT

ANEMOSTAT CORPORATION OF AMERICA  
10 East 39th Street, New York 16, N. Y.

THERE IS AN ANEMOSTAT DESIGNED FOR EVERY RAILROAD APPLICATION





## A NEW HIGH in travel comfort

A NEW HIGH in travel comfort—the luxury and relaxation of a living room on wheels—is brought to the railroad with G-F Aluminum seating equipment. Long experience and high standards in manufacturing metal furniture enable G-F to bring you the finest for travel comfort . . . Goodform Aluminum Chairs, built of lightweight durable aluminum, cushioned with foam rubber, upholstered in a choice of beautiful coverings . . . for passenger enjoyment and low-cost lifetime investment.



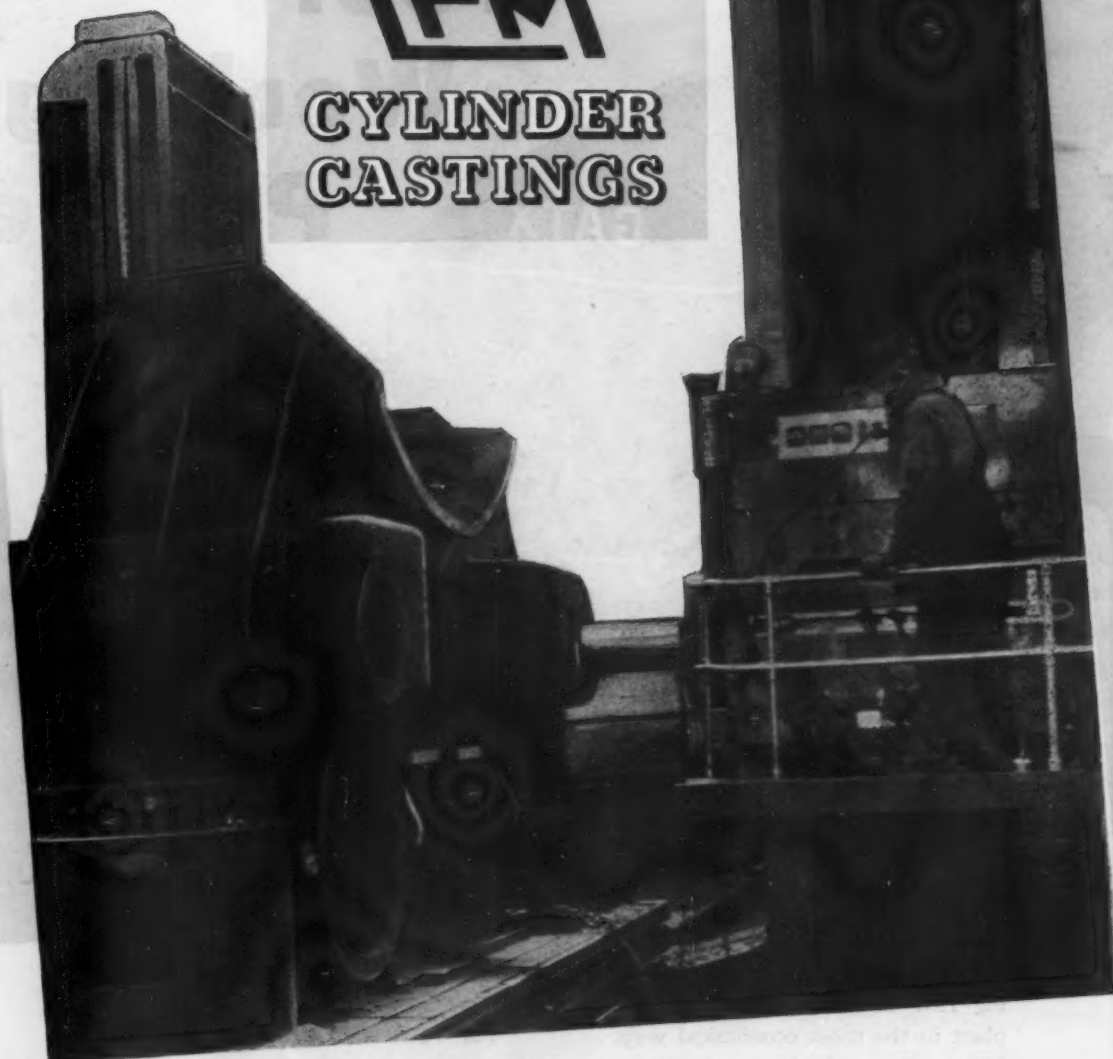
THE GENERAL FIREPROOFING CO.

YOUNGSTOWN 1, OHIO

METAL DESKS—GOODFORM ALUMINUM CHAIRS—METAL FILING CABINETS—STEEL SHELVING—FILING SUPPLIES—STORAGE CABINETS

# LFM

## CYLINDER CASTINGS



**T**WO important things are inherent in every LFM cylinder casting. First, is high quality—the result of care and skill in metallurgy and casting control. And second, is engineering design—the result of well-trained, experienced personnel.

We produce cast steel and gray iron cylinders in either one piece or two piece. LFM one piece castings feature such refinements as integral back cylinder head and independent passages which eliminate structural failures as well as expensive maintenance.

The perfect combination—LFM Alloy Steel Pistons and Universal Sectional Bull Packing Rings—reduce weight one-half; conserve fuel, power, equipment and track. Ask for details.

**THE LOCOMOTIVE FINISHED MATERIAL CO.**  
ATCHISON, KANSAS ★ NEW YORK CITY ★ CHICAGO, ILL.



# Your Working Partner

**Here's how** General American tank cars go to work for men at the top:

First, they save you money, bringing raw liquid products to your plant in the most economical way. Many General American cars, specially designed, make possible money-saving bulk shipment for hard-to-handle acids, alkalies, gases.

Second, they maintain your quality

reputation. They have the special features needed to guard against chemical or physical change in your finished product.

#### For Your New Products

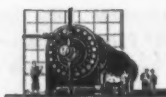
General American research engineers are ready now—to design the specialized tank cars that will carry your products to market safely, surely, and at low cost.



Builders and Operators of  
Specialized Railroad Freight Cars



Bulk Liquid  
Storage Terminals



Process Equipment  
of All Kinds



Pressure Vessels and  
Other Welded Equipment



Aerocoach  
Motor Coaches



Precooling Service for  
Fruits and Vegetables



**GENERAL  
AMERICAN  
TRANSPORTATION**

CORPORATION

CHICAGO



# **PRESSURE-TIGHT LEAK-PROOF VIBRATION-PROTECTED**

The Parker Triple Type Fitting proved itself so efficient and economical that its principle was standardized for Army-Navy use on aircraft and ordnance.

The flared joint of this fitting provides maximum "tightness" without strain or tension on the tubing itself. It is fully protected against leakage under pressure, and is safe in conditions of extreme shock and vibration.

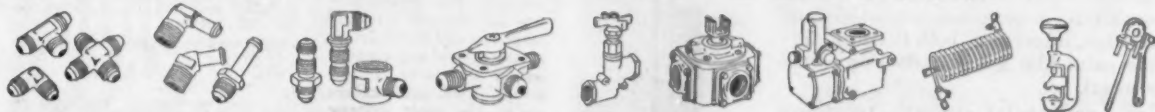
Parker systems provide streamlined flow, free from obstructions, and are easy to install and service, even in hard-to-get-at spots.

Production released by reduced military needs now permits you to use Parker fittings, in a wide variety of types, sizes and capacities, for power and fluid transmission systems.

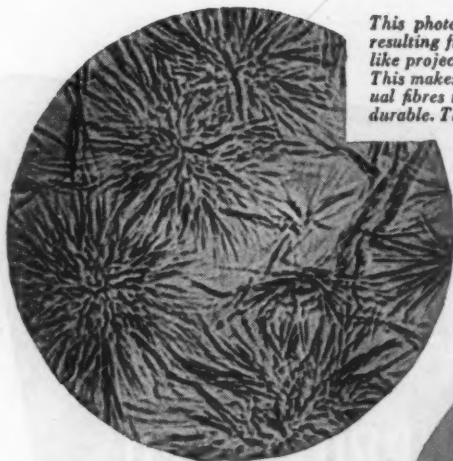
Immediate deliveries from Parker warehouses, or from your mill supply house. Information gladly furnished by Parker Appliance Co., 17325 Euclid Ave., Cleveland 12, Ohio.

## **THE PARKER APPLIANCE CO.**

CLEVELAND • LOS ANGELES

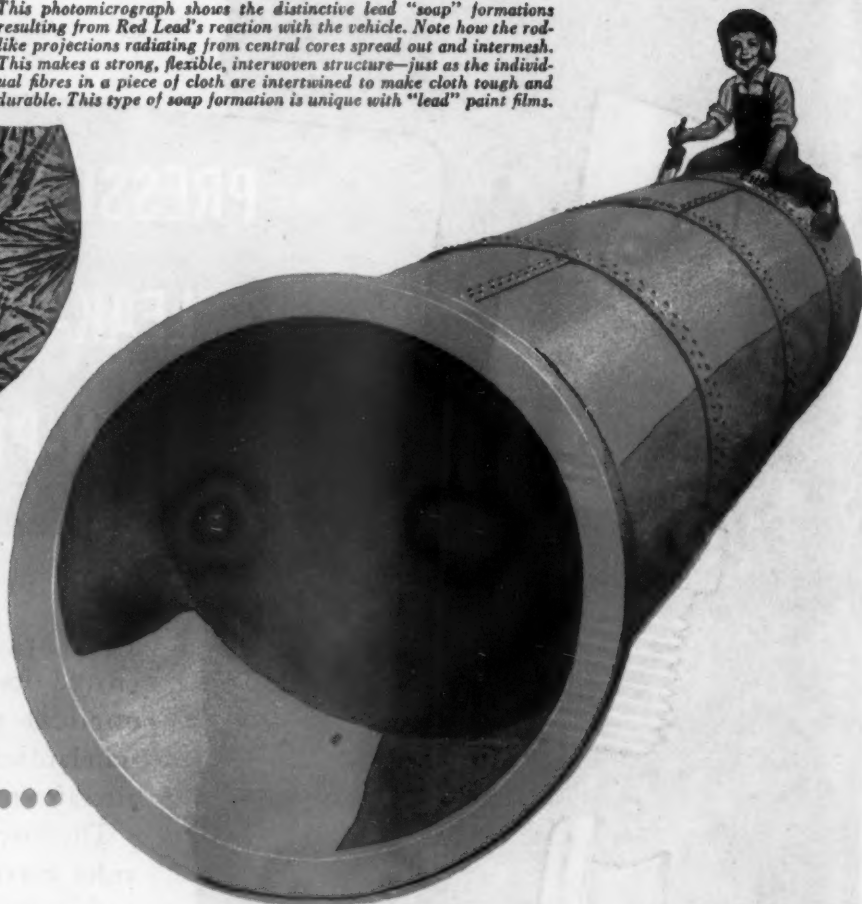


**FLUID POWER PRODUCTS FOR ALL INDUSTRY**



This photomicrograph shows the distinctive lead "soap" formations resulting from Red Lead's reaction with the vehicle. Note how the rod-like projections radiating from central cores spread out and intermesh. This makes a strong, flexible, interwoven structure—just as the individual fibres in a piece of cloth are intertwined to make cloth tough and durable. This type of soap formation is unique with "lead" paint films.

## unique LEAD SOAPS...



### another important reason why **RED LEAD** means Extra Rust Protection

Why is Red Lead outstanding as a metal protector?

One of the major reasons is this pigment's remarkable ability to impart to the paint film strong, tough, intertwining lead "soap" formations—as shown in the photomicrograph above.

These unique lead "soaps" improve the paint film in many ways. For one thing, they form a dense, intermeshing matrix which restricts the passage of water through the film. And rusting does not take place without the presence of moisture.

For another, they mechanically reinforce the film, giving it extra strength and toughness.

And again, Red Lead "soaps" contribute all-important elasticity—allowing movement along their intermeshing projections. This action helps prevent the ruptures to which a hard, unyielding film is subject. Moreover, when a paint film dries and ages, decomposition of the vehicle sets in. But, because of Red Lead's ability to combine with the decomposition products and form soaps, it increases both the durability of the paint film and its adhesion to the base metal.

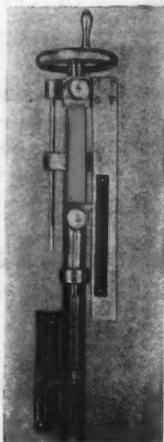
Red Lead's extra strength, toughness and elasticity are demonstrated by the ten-

sile strength test below and substantiated by exhaustive research and field service.

Remember, too, that Red Lead is compatible with practically all vehicles commonly used in metal protective paints, including phenolic and alkyd resin types.

#### Specify **RED LEAD** for All Metal Protective Paints

The value of Red Lead as a rust preventive is most fully realized in a paint where it is the only pigment used. However, its rust-resistant properties are so pronounced that it also improves any multiple pigment paint.



In this tensile strength tester a typical Red Lead paint film has been stretched 18% without breaking. In withstanding this elongation it has maintained a load of 920 grams. Any film that exhibits these characteristics has unusual strength, toughness and elasticity. As metals expand and contract only a fraction of one percent, this film would adhere under the most extreme conditions.

No matter what price you pay, you'll get a better paint for surface protection of metal, if it contains Red Lead.

**Write for New Booklet**—"Red Lead in Corrosion Resistant Paints" is an up-to-date, authoritative guide for those responsible for specifying and formulating paint for structural iron and steel. It describes in detail the scientific reasons why Red Lead gives superior protection. It also includes typical specification formulas—ranging from Red Lead-Linseed Oil paints to Red Lead-Mixed Pigment-Varnish types. If you haven't received your copy, address nearest branch listed below.

All types of metal protective paints are constantly being tested at National Lead's many proving grounds. The benefit of our extensive experience with Red Lead paints for both underwater and atmospheric use is available through our technical staff.



**NATIONAL LEAD COMPANY:** New York 6, Buffalo 3, Chicago 80, Cincinnati 3, Cleveland 13, St. Louis 1, San Francisco 10, Boston 6 (National-Boston Lead Co.); Pittsburgh 30 (National Lead & Oil Co. of Penna.); Philadelphia 7 (John T. Lewis & Bros. Co.); Charleston, W. Va. (Evans Lead Division).

## DUTCH BOY RED LEAD

**Easy to  
factor,  
rugged  
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October 20, 1945





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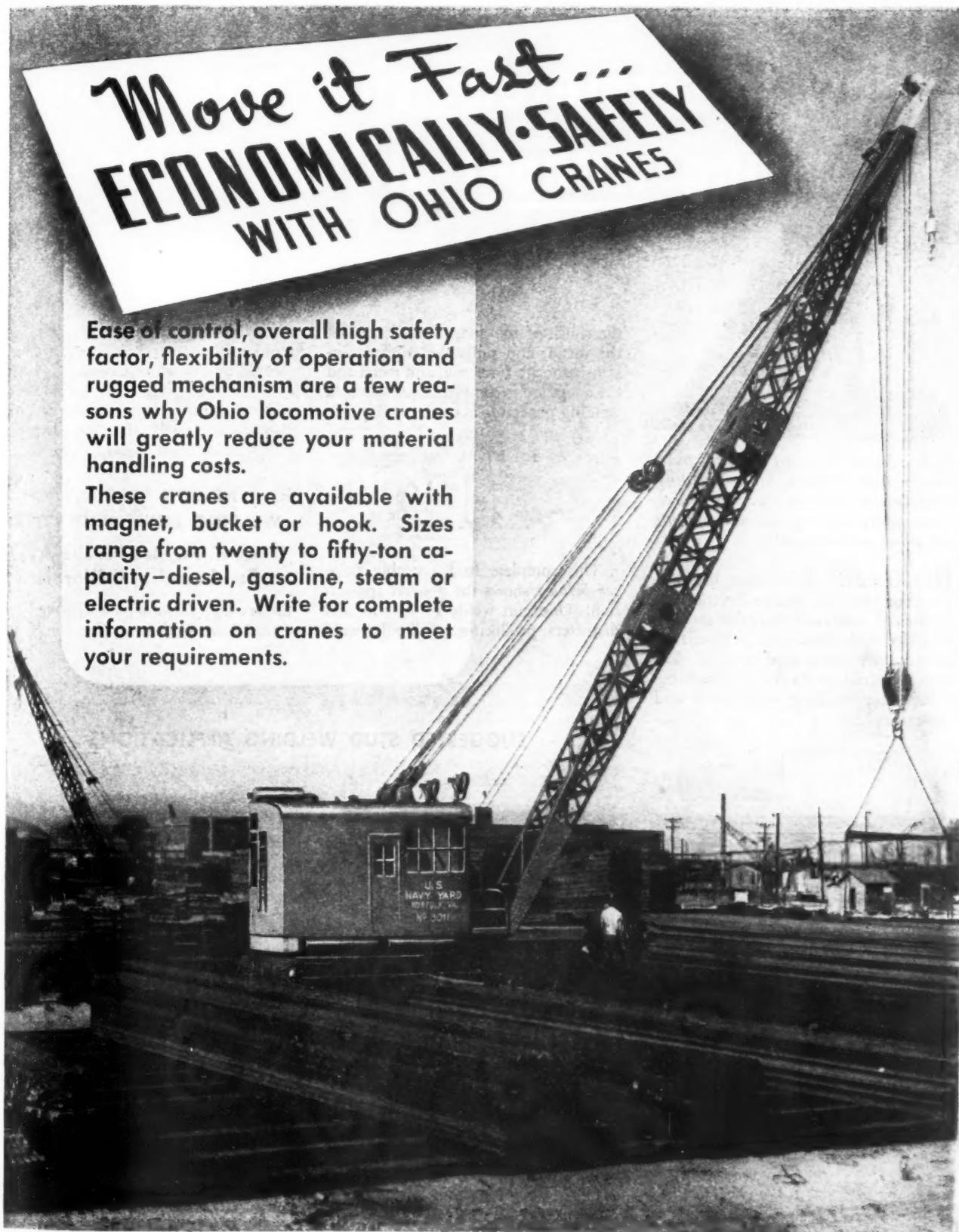
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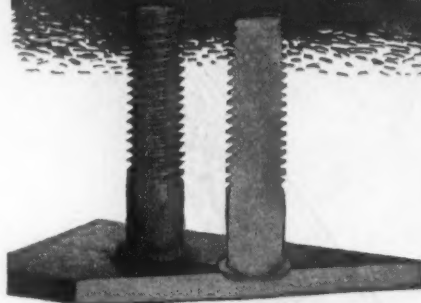
These cranes are available with magnet, bucket or hook. Sizes range from twenty to fifty-ton capacity—diesel, gasoline, steam or electric driven. Write for complete information on cranes to meet your requirements.



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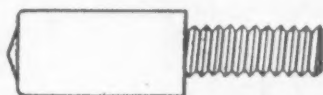
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# How to secure electrical parts and wiring without drilling holes

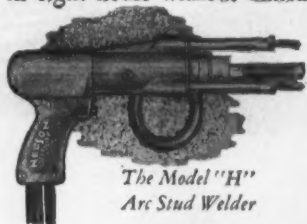


*This section view of a stud weld shows how Nelson Stud Welding completely fuses a stud to metal, eliminating drilling holes. And it's all done automatically!*

**NELSON** Arc Stud Welding has been used for years for marine electrical installations and is now available for general electrical construction. Thousands of guns are being used in more than 800 industrial plants and shipyards because stud welding saves time and material.



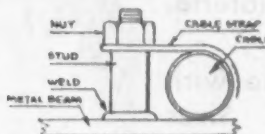
Above is a typical Nelson Stud. The pointed end is placed against the metal part and welded with the stud gun. The electrical parts are secured to the threaded end. Studs are manufactured in all standard lengths up to eight inches, in diameters from  $\frac{3}{16}$ " to  $\frac{3}{4}$ ", and in many types and shapes. It takes less than one second to weld a Nelson Stud—operators secure 500 to 1000 studs in eight hours without difficulty.



*The Model "H"  
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This complete stud assembly (also see below) shows the general application. One gun welds all lengths and diameters, producing a full fillet weld

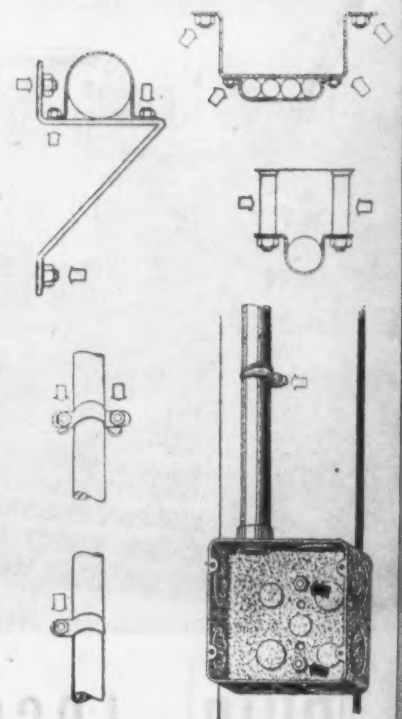
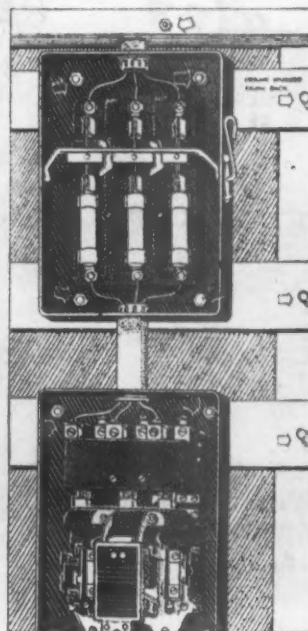
in any position. Studs secured by this rapid method equal in strength those secured by any other means.

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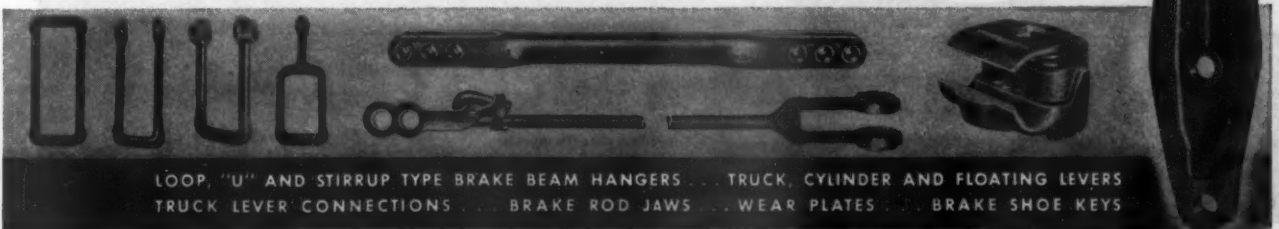
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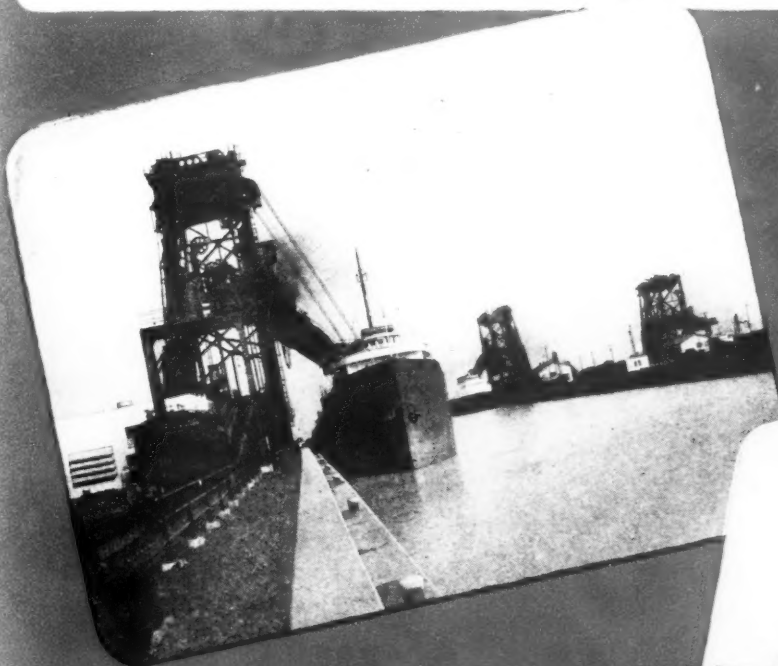


October 2

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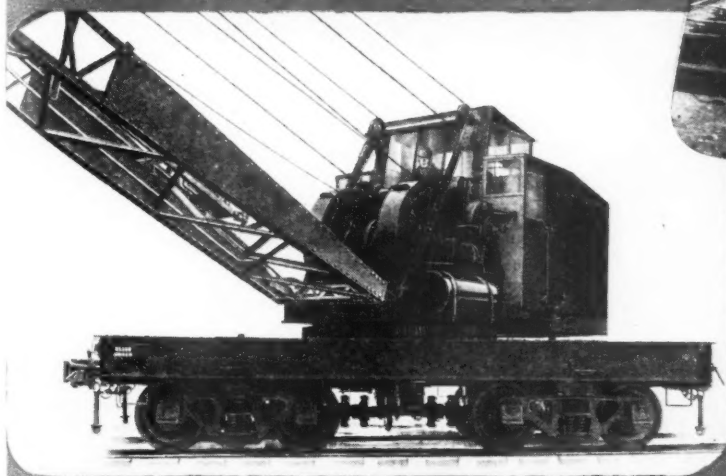


The three I.B. High-Lift Electric Car Dumpers (left) installed at a Great Lakes coal dock typify the engineering and construction superiority that has made the name, Industrial Brownhoist, one of the most respected of manufacturers of heavy-duty material handling equipment. These giant dumpers empty sixty 120-ton capacity coal cars per hour—one a minute!—easily, cleanly, at low cost

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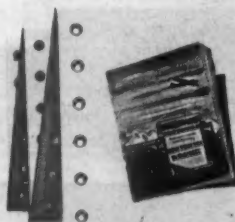
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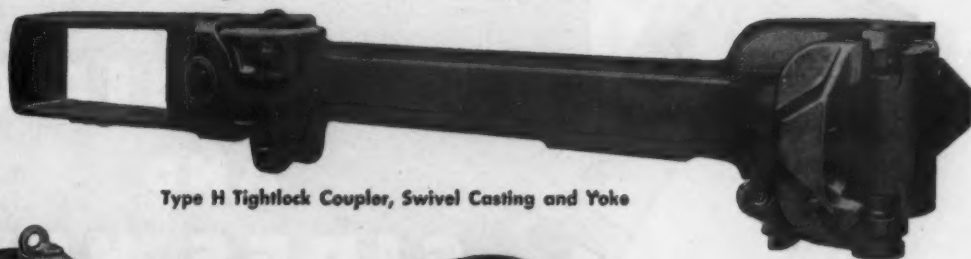
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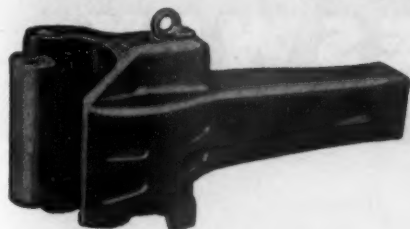
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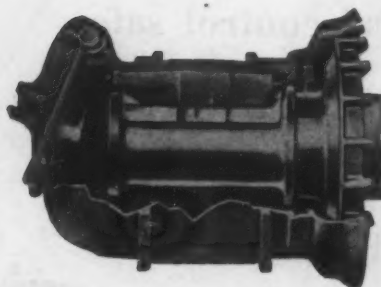
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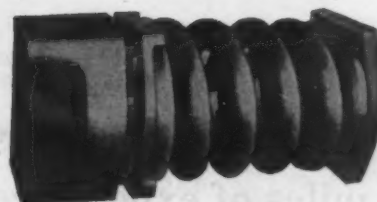
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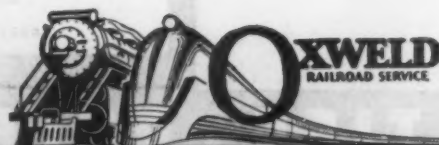
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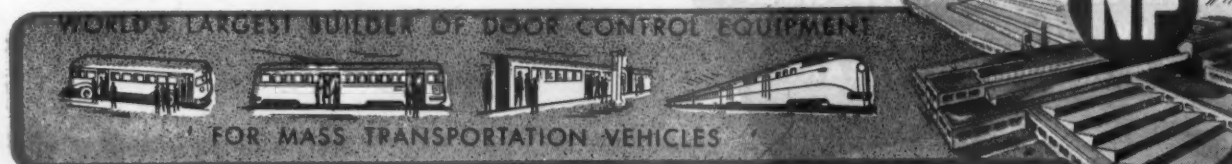


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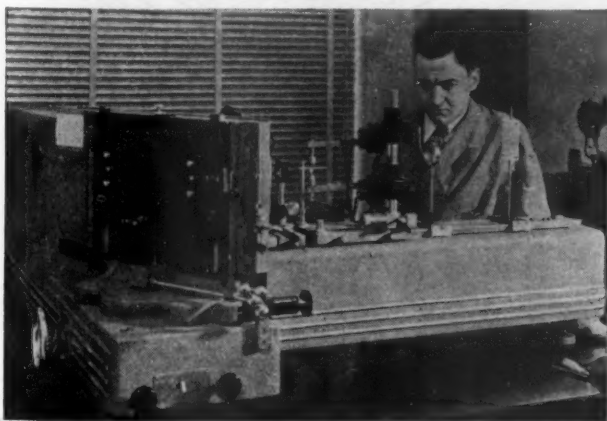
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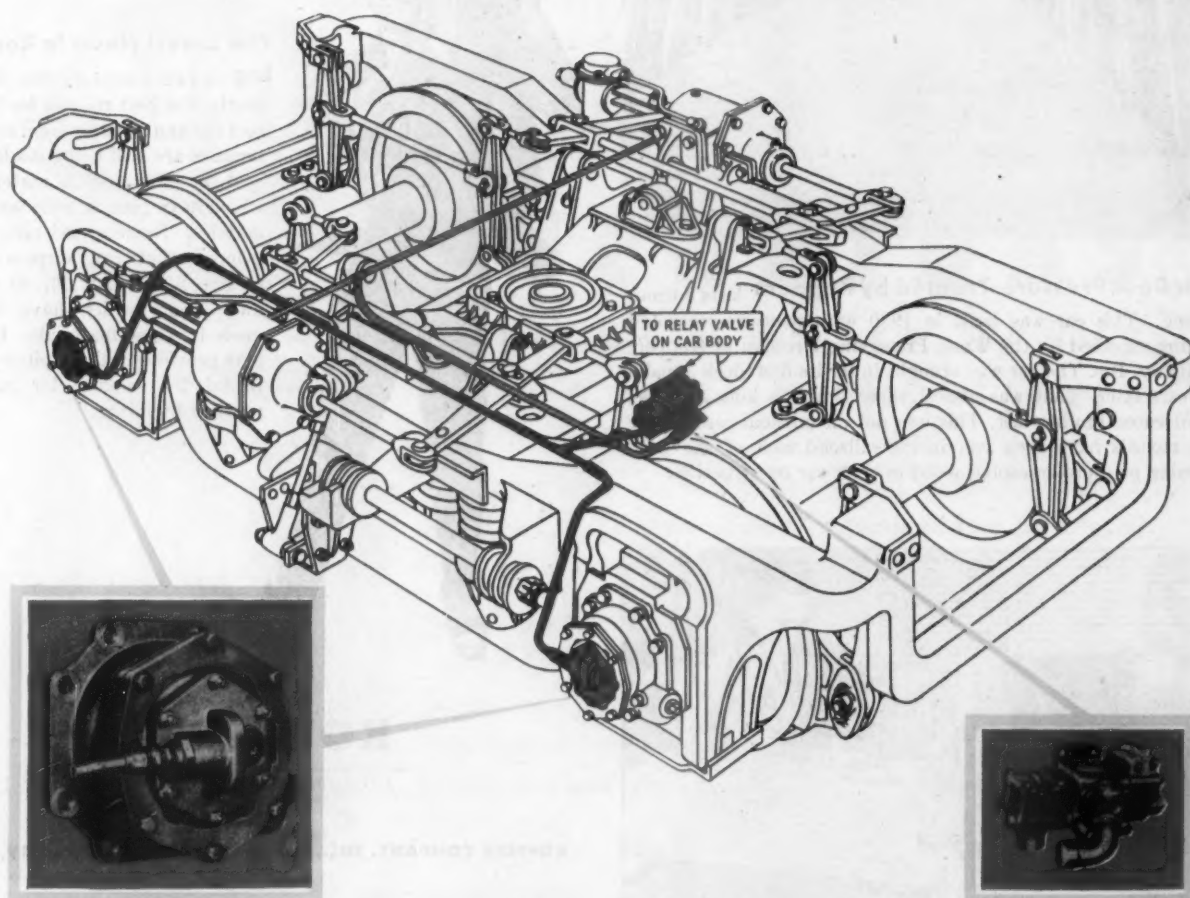
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# Railway Age

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October 20, 1945

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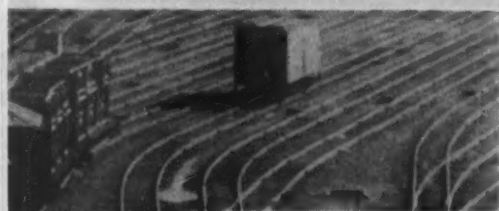
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Illinois Central	N. B. Markham	67	121	69	3- 8-26
Indiana Harbor Belt	S. B. Gibson	30	29	32	9- -26
Boston & Maine	Inbound Boston	47	26	48	9-26-27
Boston & Maine	Outbound Boston	30	15	30	9-26-27
Central Railroad of New Jersey	E. B. Allentown	24	21	23	11-22-27
Norfolk & Western	W. B. Portsmouth (Ohio)	36	35	44	1-24-28
Cleveland, Cincinnati, Chicago & St. Louis	W. B. Sharonville	30	24	31	8-29-29
New York, New Haven & Hartford	E. B. Cedar Hill	45	26	48	9- 4-29
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Chesapeake & Ohio	W. B. Russell	21	21	25	11-26-29
Richmond, Fredericksburg & Potomac	N. B. Potomac	46	27	48	2-10-30
Erie	W. B. Marion	24	17	24	1- 2-31
Chicago, Burlington & Quincy	E. B. Galesburg	49	20	52	9-15-31
Delaware, Lackawanna & Western	Hampton, Scranton	29	16	30	9- 3-37
Pennsylvania	E. B. Enola	33	20	35	12-21-37
Belt Ry. of Chicago	E. B. Clearing	44	24	51	2- 5-38
Belt Ry. of Chicago	W. B. Clearing	36	20	44	9-13-38
Norfolk & Western	E. B. Roanoke	46	28	52	12-27-41
Norfolk & Western	Time Freight Portsmouth (Ohio)	18	6	20	3-26-42
Chicago, Burlington & Quincy	W. B. Galesburg	35	17	38	10-15-42
Pennsylvania	W. B. Enola	36	21	44	11-23-44
Chicago, Burlington & Quincy	E. B. Lincoln	36	14	38	7-22-44
Richmond, Fredericksburg & Potomac	S. B. Potomac	29	14	28	Under Constr.



Your post-war yard modernization plans should include "Union" Electro-pneumatic Car Retarders. Write for a copy of the 72-page Bulletin No. 155, "Freight Classification Yards—Design and Operation," or consult our nearest district office.

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# The Week at a Glance

## PEGLER ADVISES RAILROADS:

Westbrook Pegler made some interesting and customarily pungent observations—predominantly complimentary—on railroad passenger service in one of his recent columns, and we publish his essay in this issue. Mr. Pegler wants the assurance of comfort and safety in his travel—at the sacrifice, if need be, of some speed and glamor—and he warns that courtesy can be carried to objectionable extremes, although one may doubt whether many recent customers would join him in a complaint on that score. His central argument appears to be that the railroads already have some highly desirable virtues in contending for travel business and that, in seeking to add other attractions to their service, they should exercise care not to weaken those which are already firmly in their possession. Mr. Pegler doesn't seem to esteem very highly those agencies of transportation whose executives make a play for personal publicity and are habitués of night clubs.

## LOUD-SPEAKERS:

A "public address system," as voice amplifiers are now called, has been installed at the I. C.'s 63rd street station in Chicago, embodying a number of desirable features—among them that of making the voice loud enough for the passengers to get the necessary information, but not so noisy as to disturb the neighbors, an advantage achieved by the provision of a maximum number of small "speakers," which help audibility while diminishing the din. A short illustrated article herein describes the installation.

## WOOD PRESERVING PROGRESS:

In spite of the war's limitations on timber supply, in available labor, and in treating materials, wood preservation in 1944 registered an increase of 6 per cent over 1943, detailed figures being given in an article in this issue. There had been a bad slump in treatment in 1943, though. Use of creosote rose 6 per cent in 1944 over 1943. The consumption of zinc chloride fell off sharply, while there was a minor increase in the use of chromated zinc chloride. There was an almost 90 per cent decrease in the application of fire-retardant treatment, ascribable to the Navy's retirement from the market, it having been the leading customer of such service.

## DIXIE ROUTE'S C.T.C.:

With 92 more miles of centralized traffic control now in service west of Nashville, the N. C. & St. L. now has 207 continuous miles of C.T.C. from Bruceton, Tenn., and Stevenson, Ala. (with a gap of 4 miles through Nashville terminal). This is a heavy-traffic railroad, parts of which have severe curvature and grades, combining to make a difficult and interesting operation, and an article herein tells how the job is done, with the aid of C.T.C.

## DIESELS ON HEAVY GRADES:

Diesel-electrics appear to be giving a good account of themselves in through freight service under mountainous conditions—such must be the conclusion from cost figures

given in an article herein derived from D. & R. G. W. experience. Our report gives a detailed account of the maintenance procedure. The road employs traveling maintainers on this power, and believes the plan economical; especially in that it materially reduces the time required to turn the power at terminals, thus increasing the ratio of time spent in revenue-producing service.

## I. C.—RECORD AND PROSPECT:

Illinois Central gross ton-miles increased 77 per cent from 1940 to 1945, while freight train-miles rose only 26 per cent—the average gross trainload rising 43 per cent. These and other striking figures revealing this system's war-time operations are given in an article in this issue, which summarizes the carrier's indispensable contribution to the nation's military triumph. Some of the expedients adopted by the management to cope with its difficult problems—especially the shortage of men and equipment—are recited. In another article in this issue—an abstract of an address by I. C. President Wayne Johnston—the management's plans and policies for meeting the problems of the tough competitive days which lie ahead are revealed.

## WAR REGIME FADES FURTHER:

The historic arrangements whereby W. F. Kirk has acted as I. C. C. agent for diverting and rerouting carload traffic and empty cars in western territory will be terminated on October 31. The O. D. T. has completely eliminated its unit permit system regulating the movement of overseas freight to ports, effective October 15.

## TRAFFIC TOBOGGAN:

A preliminary estimate of freight ton-miles in September is 50,400 million, a decline of 17.5 per cent under September, 1944. The decrease in August was 12.5 per cent.

## AIRPORT FINANCE:

A "railroad town" in Western Missouri is trying to get itself an airport, and the leading editorial in this issue contrasts the means being employed to provide this community with air transportation, with those used 70 years ago to bring the locality its railroad. Now, instead of people who want an airport going out and raising private capital to build one, they go to the city council and ask it to vote them an airport at the taxpayers' expense. When the railroad came to town, it wasn't built by tax money but by private capital. Some of the people who bought stock lost their savings, but nobody had to buy stock or contribute in any way to bringing in the railroad unless he felt inclined to do so. No one was coerced into helping along transportation improvements—and, still, the progress of the country was not any slower in those days than it is today when nobody wants to do anything big without a government hand-out. The old-timers were better off in one further important respect—in that they didn't have to pay up to half or more of what they earned to the federal, state and local tax-collectors.

## M. OF W. MASS METHODS:

The railroads have really got something new in the way of a mass-production technique. The ordinary assembly-line process as applied in the manufacturing industry subordinates the material to the machine. The machine has to be humored to get it to do its big job. A complex lay-out of tools works efficiently because a large volume of work is brought to it. But the railroads have developed mass production in roadway maintenance under conditions where the machine has to be taken to the work instead of vice versa. An editorial in this issue suggests that most "outsiders," and even a lot of railroad men, are far from sensing this really revolutionary development in which the railroads are pioneers. And the movement zooms on—so rapidly that it just isn't possible for anyone to keep fully abreast of what is going on, so rapidly are innovations appearing.

## COMPARATIVE LOCO. COSTS:

Comparative figures of operating costs per locomotive-mile have been most confusing when used by those not familiar with the varying bases upon which such figures have been compiled. As unsatisfactory as such figures have been for making reliable comparisons in the relative efficiency of steam locomotive performance, they are even less helpful in comparing Diesel operations—for one reason because Diesels may consist of a varying number of power units. An editorial herein suggests that, while the Diesel is still relatively new, a painstaking effort be made to establish a standard cost procedure which will give these operating expenses per locomotive-mile as much uniformity of content as possible. Despite the inadequacy of such indices for inter-railroad or inter-territory comparisons, their use for this purpose cannot be put down, and such causes of unreliability in the figures' use for this purpose as are subject to correction ought to be corrected.

## LONESOME TOM:

Hearings on the "Bulwinkle Bill" (H.R. 2536), to remove all doubt as to the legality of the "bureau method" of rate-making, are proceeding, as reported in our news pages, with Attorney General Tom C. Clark the sole opponent of the legislation who has as yet put in an appearance. However, the favorite governor of the "journals of opinion," Arnall of Georgia, is scheduled to testify later on this week and Tom's solo will then doubtless become a duet, arrayed against the harmonious chorus of all carrier, shipper, and regulatory voices in the land who join in approving the Bulwinkle measure.


## TOLL ROAD FOR N. Y.?:

New York's state department of public works took a census one day this week of highway traffic in the vicinity of its proposed cross-state "thruway" on which it plans to spend \$202 million. The purpose of the census was to determine whether, by reason of savings in time on long hauls, the state might look to tolls from such traffic to carry the cost of the proposed new road.


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## for the railroads



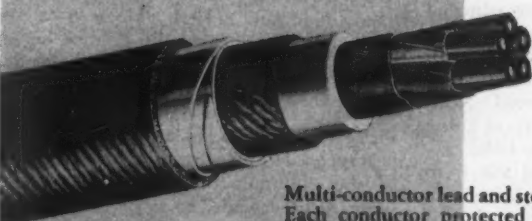
Single conductor Okolite insulated and Okoprene protected signal wire.



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Okoprene's weather resistance means longer life when used in aerial cables, C.T.C. wire, and other exposed wiring. Okoprene's resistance to chemicals recommends it for cables buried in cinders or exposed to smoke.

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Talk over with Okonite engineers the many railway applications of Okoprene in various Okonite insulated wire and cable products. The Okonite Company, Passaic, New Jersey.



## An Airport for Slater, Mo.

Slater, a community in Western Missouri of upwards of 3,000 inhabitants, has a citizenship which is economically "progressive"—and, as such, insists upon having local facilities to make air transportation available. Slater's situation and point of view are typical of thousands of other communities in the country and, taken together, they pose a question of national transportation policy of the highest importance.

Slater now has a rather primitive municipal airport located on rented land. At a recent special election the electorate was asked to approve a bond issue to purchase this property, thus to qualify the municipal airport for "federal aid" and "state aid" for grading and other improvements to bring the airport up to an acceptable standard for commercial use. The bond issue, however, while it was approved by more than half of the voters, did not receive the two-thirds majority necessary to authorize an increase in municipal indebtedness. There appears to be nothing to prevent the city commission, however, if it chooses, from using current funds for the purchase of the airport land; and many of the community's aviation enthusiasts strongly favor such action.

Now there is certainly nothing reprehensible, but quite the contrary, in a community's desire to assure itself of modern transportation facilities. There is, however, an interesting and significant contrast between the manner in which this neighborhood is seeking to secure air service and the means it employed 70 years ago to acquire railroad service. Then, neither the voters nor the city commission were asked to vote tax funds in order to induce a railroad to serve the area—for one very good reason that, until the railroad came, there was no Slater; its site was just "Old Mr. Baker's cornfield." The railroad made Slater. The railroad paid taxes and continues to pay them—it does not consume them, as all agencies of transportation subsequent to the railroad have done and are doing.

### Railroad Not Tax-Built

When the railroad came, it did sell stock to local citizens and, quite likely, some of them lost money in the venture, but nobody *had* to subscribe to stock. Mr. Baker donated the land needed for a railroad yard, but nobody forced him to do so. In those days, people were so self-reliant that, when they wanted improvements, they went out and produced them with their own savings and effort, without asking the tax-gatherer to force persons indifferent to such improvements to share in the expense. The country progressed then, too—certainly at no slower a rate, relatively speaking, than it has done since government is looked to for everything; and when people earned money in those days they spent it as they

pleased instead of being required to turn over the bulk of their savings to the tax collector.

This note is not a homily especially addressed to the citizens of Slater. If they *should* decide to leave the provision of a local airport to those who are primarily interested in it, not making it a municipal enterprise, the result would doubtless be that "federal aid" and "state aid" would be denied, and the resultant charges for use of a privately-owned airport would contrast unfavorably with those of other local airports, where all the capital had been advanced by federal, state, and municipal governments. Because the federal and state governments proffer "aid" designed to promote municipal—instead of private—ownership of local airports, private enterprise just cannot enter this field with any hope of survival. The citizens of thousands of Slaters all over the country are thus forced to choose between adding to the socialization of transportation, and denying themselves such advantages as their communities may hope to gain from airport service at charges to users no greater than those available in localities where federal, state and local taxes pay most of the bills.

### Private Enterprise Is Barred

Socialization of the costs of air transportation is not necessary to the orderly and rapid development of such service, but is being forced by federal and state policies. Private enterprise and private financing could develop aviation just as they did the railroads—but if some or most airports are to be socialized, with the financing almost exclusively governmental, then it is likely that all of them will have to be. Airports which have to pay their way by charges laid upon users cannot hope to compete with those where most of the capital and other costs are paid by taxation. Voters who are asked in the name of "progress" to vote to make such improvements compulsory may also profitably reflect on the question of how long the railroads can continue to remain as the only form of fixed transportation property which pays instead of consuming taxes.

A vote cast for an assessment of a few dollars per head in increased taxes may look like a cheap price to pay for a modern airport or superhighway; but if a continuance of such assessments leads, ultimately, to the disappearance of the railroads from the local tax rolls, it will then be evident that these "improvements" have cost more than they are worth. Once the principle of private enterprise—leaving economic activity strictly to the initiative and the expenditure of uncoerced individuals—is transgressed, it is hard indeed to draw the line anywhere short of wholesale communization of all productive property.



## "Full Employment" Planners Are Biding Their Time

The so-called Murray "full-employment bill," S. 380, as it was passed by the Senate on September 28, was amended in a manner to remove some of its worst features. For one thing, the bill as approved by the Senate does not commit the federal government without reservation to undertaking a program of public works large enough to make up the difference between estimated private employment and the number of people seeking work. Instead, before deciding upon any "make-work" program, the government may give heed to "other considerations of national policy" as well as the desire to create jobs—which means that the government could decide that balancing the budget and refraining from further competition with private enterprise were more important objectives than a lot of "make-work" expenditures.

Another amendment provides that any program of federal public works must be accompanied by a program of taxation designed to provide the funds for the proposed outlay, to avoid further increases in the federal indebtedness. With such amendments as these, the question might be raised as to why the bill's proponents still press for its adoption; or why opponents of the measure persist in desiring its defeat.

The answer to that question lies in the fact that the bill, despite its amendment, still adheres to its main purpose—which is to grant to the federal government primary responsibility for maximizing the country's economic activity. To be sure, it grants this responsibility and power without at the same time providing means adequate to the exercise of such unprecedented functions—but proponents of the legislation are certainly cognizant of the probability that, once the principle of continuing federal meddling with the economy is accepted, it will thereafter be much easier to secure the enactment of bills to "implement" the principle.

The two-timing intentions of the bill's advocates were clearly revealed by their defeat of an amendment proposed by Senator Hickenlooper of Iowa, who sought to insert a provision that "*the federal government should not pursue a policy of engaging in commercial activity in competition with free, competitive private enterprise or the investment of private capital.*" On this proposal, Senator Aiken of Vermont, one of the bill's strongest advocates, had this to say:

"I wish to protest with all the emphasis at my command against the adoption of the amendment offered by the Senator from Iowa. To adopt it would be the same as saying that our government cannot appropriate money for highways, for the improvement of waterways, or for the construction of airports. . . . We would be unable to construct R. E. A. [federal electric power] lines or do anything of that nature."

Senator Hickenlooper's amendment was defeated by a vote of 49 to 30—so here we have a bill which states in general terms that its purpose is "to foster free competitive private enterprise and the investment of private capital," but which its protagonists are alert to see shall actually do no such thing. The real purpose of the bill is to enhance the authority of the federal government over the economy and to lubricate the skids under private enterprise—because, if its purpose were not that, then no voice could have been raised against the Hickenlooper amendment, which did no more than attempt

to translate into effective specific terms the bill's affectionate language about private enterprise.

In the vote on the Hickenlooper amendment it is significant to note that several Republicans lined up with the New Dealers, among them Aiken of Vermont, Tobey of New Hampshire and Morse of Oregon; while such old-line Democrats as Bailey of North Carolina, Byrd of Virginia, and both Maryland members voted with the losers, predominantly Republicans. Thus, step by step, the revolution goes forward.

## Diesel Operating Costs

Locomotive operating costs on a per-mile basis have been used as a means of comparison for so many years that it seems an act of heresy to question their value; yet every person connected with locomotive operation knows full well that costs on a mileage basis have definite limitations. With steam locomotives both operating (fuel, water, lubricants, etc.) and maintenance (repairs, etc.) costs bear a definite relation to the character of service, the territory over which operated, the age and design of the locomotive and the number of miles run between shoppings for general repairs. All other things being equal, a small locomotive, represented for example by low tractive force, would hardly cost as much to operate and maintain as a large, high-capacity locomotive. A recognition of the wide fluctuations of the many factors making up locomotive costs immediately suggests the wisdom of taking over-all costs on a per-mile basis, if not with a grain of salt, at least with a full knowledge of the background of significant facts.

Over all the years that the steam locomotive has been in existence the per-mile costs have been accepted as a basis for comparison—those who have kept complete records having done so with sufficient appreciation of the limitations of the basis to know that the comparisons would best serve their purposes if confined to a single railroad, and between operating periods rather than between different groups of locomotives.

Now the Diesel-electric locomotive has entered the picture to complicate a situation with respect to locomotive costs which was never too clear in the relatively simple application to steam power. Many people who should know better often want to know, "How much does it cost to operate a Diesel locomotive?" and, strangely enough, many who should know are not able to give an answer.

It seems that the railroads, in their accounting, have already separated the switchers from the road power and in relation to the latter have segregated the passenger and the freight locomotives. But this is not enough, because practically all road locomotives consist of two, three or four body, or power, units. Unfortunately not all roads operate Diesel locomotives in the same number of units all the time and the character of traffic on one road may require two- or three-unit locomotives most of the time while another road may operate all the time with four units. Many roads have established a horsepower-unit basis for their costs such as, for example, 2,000 hp. in passenger service and 2,700 hp. in freight service. This, at least, pins the costs down to a known basis and attaches some value to the records until one tries to make comparisons of one road with another. Then the variations in costs in what are known to be

the same type of power are so wide that both the low and the high figures are looked at with skepticism.

It is time, while we still have an opportunity and while Diesel power is still relatively new, to set up cost procedure which will produce figures of some value. Everyone realizes that in an operation involving so many varying factors as that of railroading it is practically impossible to qualify every set of figures in such a manner as to leave no doubt in one's mind as to what they mean. This comment is made only with the idea of suggesting that, having lived so many years in doubt as to just what was meant by steam-locomotive operating costs, we can now make a substantial contribution to the economics of future railroad operation by making such an analysis of Diesel locomotive costs as will establish a basis the meaning of which we all understand.

## Freight Cars— A Weapon of Peace

The problem of continuing the prompt handling and heavy loading of freight cars is being attacked by the railways and is deserving of the most attention that it can be given. Directors Eastman and Johnson of the O. D. T. insisted upon the principle from the early days of the struggle that freight cars should not be used as warehouses, and the vigilance of the O. D. T., the railways and the special committees formed by the Shippers Advisory Boards insured that this policy was given effect. In addition, all the agencies concerned exerted every effort to see that cars not only were loaded properly, but that they were loaded to the maximum in order to avoid waste of capacity.

One of the reasons why such co-operation was attained was that it was obvious that the war effort required it. Even so, the results would not have been nearly so good except for the existence of the Shippers Advisory Boards. The effective work done by these is a tribute to the late M. J. Gormley, who was largely responsible for their inauguration and who never lost interest in their continuance. It was a source of the greatest satisfaction to him in his last days to know that this plan of his had borne such excellent fruit.

Now, however, the stimulus of patriotism and the attendant subordination of self-interest has been removed, and it is up to the railways to prove to the shippers that the betterment of transportation through the continuation of such practices is in the interest of all concerned. We have mentioned from time to time the efforts being made by individual railways to bring about this result. A recent further instance of such effort is the distribution by the Texas & Pacific to its shippers and employees of a large number of attractive cards expounding the theme of better car handling.

Such efforts are in the right direction, but to insure success the educational program should not be left entirely in the hands of the transportation department. This is a matter which affects a number of departments, including operating and traffic, both of which have a large stake in better car handling. It is also a matter that needs executive attention so that the various departments concerned may work with the same degree of co-operation that is expected from shippers and receivers.

## Mechanization Advances

Anyone searching for evidences of vitality in the railroad industry need look no further than the maintenance of way departments and their progress in adapting power machines to the many tasks involved in keeping fixed properties in operating condition. The chances are, however, that such activities by these departments would be among the last which an observer would notice, because, except to the very discerning, they are not readily in evidence; besides, the average layman, and many railroad men, too, are inclined to consider maintenance work as a rather prosaic side of railroading, believing that it is carried on today in much the same manner as it was 20 or 30 years ago.

The fact is that the adaptation of mechanized methods to maintenance-of-way operations is a development that has no parallel elsewhere on the railroads or in industry in general. For the successful adoption of mass-production methods in its shops and factories, American industry has received the plaudits of the nation and of the world. But some of this praise might appropriately be bestowed upon those who have accomplished the even more difficult achievement of adapting the principles of mass production to railroad maintenance work. In manufacturing operations the work is brought to the machine under conditions as nearly ideal for mass-production techniques as man can make them; in railroad maintenance the machine must be taken to the work under conditions involving many variable and adverse factors.

Twenty-five years ago railroad maintenance men had at their disposal only a handful of power-driven machines. In 1944, by actual count, they purchased 149 different types of such machines. Some of these were of types already available for other work, which had merely to be adapted to some maintenance task, but many of them comprised equipment especially designed to meet the peculiar needs of railroad maintenance. As a result, some major maintenance-of-way operations are today completely mechanized, and all of them have to some extent felt the impact of mechanization.

It is not, however, the degree to which machines have been applied to maintenance-of-way work that is the most significant aspect of the development; it is, rather, the continuing and progressive nature of the trend that is its most striking characteristic. Motivated by the ever-present need for reducing costs and improving the quality of the work done—which at the moment is more urgent than ever because of the upward trend of wages—maintenance men are constantly looking for new ideas in mechanization to help them achieve these ends. In this search they have the able assistance of numerous manufacturers who have seen the opportunities for the use of machines in this sector, and have put their resources behind the movement to further the use of them.

Thus there has come into existence a persistent process of development, involving the creation of new and better machines, the making of improvements in existing types of equipment, and the adaptation to railroad work of machines already on the market. Hardly a day goes by without some new evidence coming to light, in the form of a better machine or a new one, to indicate that this process has an inherent vitality which is certain to carry it forward with undiminished momentum for some time to come.



# Illinois Central — a War-Time Weapon

**This important railway system remained fluid and unblocked despite heavy increases in freight and passenger traffic**

**T**HE Illinois Central, through preparedness, handled the huge war-time traffic presented to it efficiently and well. With 6,347 miles of line operated, the I. C. is fourteenth among the railways in the country in mileage. In 1944, however, it was seventh in freight revenues, with \$200,809,714; eighth in total operating revenues, with \$259,271,903; fifth in total cars handled, 2,333,543; fifth in revenue tons carried, 80,333,189; and eighth in revenue tons carried one mile, 23,823,779,000. This reflects the importance of the geographical position of the railway which, extending from the Gulf of Mexico to Lake Michigan, and with lines to Louisville, Birmingham, St. Louis and Omaha as well, bisects or connects with all the important east-west traffic routes in the United States.

## War-Time Records

The all-time records made by the I. C. in handling the swollen war-time traffic show interesting figures, indicative of operating efficiency under stress. The highlights of these statistics are shown in the accompanying table.

Using 1940 as a typical peace-time year for purposes of comparison with 1945, there was an increase of 77.1 per cent in the number of gross ton-miles, with only a 24.3 per cent increase in the number of freight trains operated and 26.2 per cent increase in freight train-miles. This excellent showing was made possible by the fact that gross ton-miles per train-hour were increased 41.4 per cent and the gross trainload was

increased 42.7 per cent. Train speed remained virtually static, with an increase of only 0.6 per cent, but miles per car per day which had reached the creditable average of 45.3 in 1940, were increased 38.8 per cent to 60.6 miles in 1945. A further index of operating efficiency is that pounds of coal per 1,000 gross ton-miles decreased 12 per cent in the same period.

Passenger operations showed a simi-

## Illinois Central War-Time Monthly Records

Revenue				
	Peak	Date	Next Highest	Date
Gross Revenue .....	\$22,849,702	Mar., 1945	\$22,728,241	Aug., 1944
Freight Revenue .....	18,443,632	Mar., 1945	18,083,903	May, 1945
Passenger Revenue .....	4,138,034	July, 1944	4,027,180	Aug., 1944
Freight Train Performance				
Gross Ton-Miles (1,000) .....	5,371,571	May, 1943	5,037,528	May, 1944
Net Ton-Miles (1,000) .....	2,495,086	May, 1943	2,298,324	July, 1943
Freight Car Miles (1,000) .....	122,274	May, 1943	116,940	May, 1944
Cars per Train (Ex. Cab.) .....	64.6	July, 1943	64.3	June, 1943
Gross Train Load .....	2,847	Aug., 1943	2,840	July, 1943
Net Train Load .....	1,335	Aug., 1943	1,320	July, 1943
Net Tons Per Loaded Car .....	34.7	Feb., 1943	34.5	Dec., 1942
N.T.M. per Mi. Road Per Day .....	12,677	May, 1943	12,194	Feb., 1943
% Loaded to Total Car Mi. ....	71.5	Feb., 1920	71.0	Sept., 1922
Train Speed .....	18.1	May, 1934	18.0	May, 1935
Gross Ton-Mi. per Tr.-Hour .....	45,437	July, 1944	45,380	Apr., 1945
Net Ton-Mi. per Car-Day .....	1,549	May, 1943	1,490	Feb., 1943
Mi. per Car per Day—				
Serviceable Freight Cars .....	76.6	May, 1943	71.8	Feb., 1944
All Freight Cars .....	75.9	May, 1943	71.5	Feb., 1944

## A Continuous Car Repair and Building Program Aided the Illinois Central in Preventing Car Shortages





During the War, the Illinois  
Central Handled About  
400,000 Carloads of Oil



Friends Through Courtesy." Perhaps the most important factor in stimulating the interest of the employees in their railway, however, has been the employee suggestion system. This is now in its seventh year of operation and more suggestions are being received, adopted and paid for than at any other time. The number of suggestions received is averaging nearly 1,000 per week. More than one in five of such suggestions are adopted, the average now being more than 200 per week. The amount of money paid for individual suggestions varies in accordance with the benefit derived from the suggestion, but payments to employees for ideas have been averaging nearly \$3,000 weekly in 1945.

### Mechanical Department

Throughout the war, the I. C. did not have a train delayed because of lack of motive power, reportable under O.D.T. rules. This record was attained despite the fact that the only new locomotives acquired since 1928 (except Diesel-electric switching and passenger locomotives) were 20 new 4-8-2 type engines built at Paducah shops in 1942 and 1943. Just prior to and during the war, however, an extensive locomotive modernization program was in progress. For example, in 1944, by means of conversions and improvements of locomotives, more than a million pounds were added to the total tractive effort of I. C. motive power. This modernizing program has dealt with more than 300 Mikado type locomotives, as well as a large number of 2-10-2 type engines. In recent years also a group of 2-8-4 locomotives has been equipped with better balanced main wheel centers and new rods, and 4-wheel trailer trucks equalized with the main spring rigging. The 1944 program included the continuation of raising steam pressure, the installation of mechanical stokers and lubricators and the enlargement of tenders for greater coal and water capacity.

Meanwhile the car shops at Centralia, Ill., and at other points were busily engaged in building and repairing cars; the 1944 production including 600 new composite hopper cars of 50 tons capacity, the conversion of 356 box cars into pulpwood-carrying cars and 100 box cars into cinder-carrying cars.

Altogether, the 1944 program covered class 1 and 3 repairs to 284 locomotives and class 4 and 5 repairs to 464 locomotives. Heavy repairs were made to 144 through passenger cars, 76 suburban cars and 111 express-refrigerator cars, while extensive repairs were also made to 13,216 freight cars of various types.

A continuing program of repairs to shops and enginehouses has been conducted. Such work has included numerous improvements to permit the use

lar efficiency. With an increase of 69.7 per cent in revenue passengers carried, passenger train-miles increased only 8.9 per cent. Passenger cars per train were increased 29.6 per cent and the average number of passengers per car was increased 104.3 per cent to make possible the record of handling a vastly increased business with only a small increase in passenger train-miles.

One of the spectacular jobs of the I. C. during the war was its participation in the vital oil movement from the Southwest to Eastern destinations. From the beginning of this all-rail movement of oil to V-J day, the I. C. has handled a total of approximately 400,000 carloads of oil. A considerable number of cars in this total represent oil that was diverted to the I. C. last spring because of disastrous floods that affected the railways west of the Mississippi river.

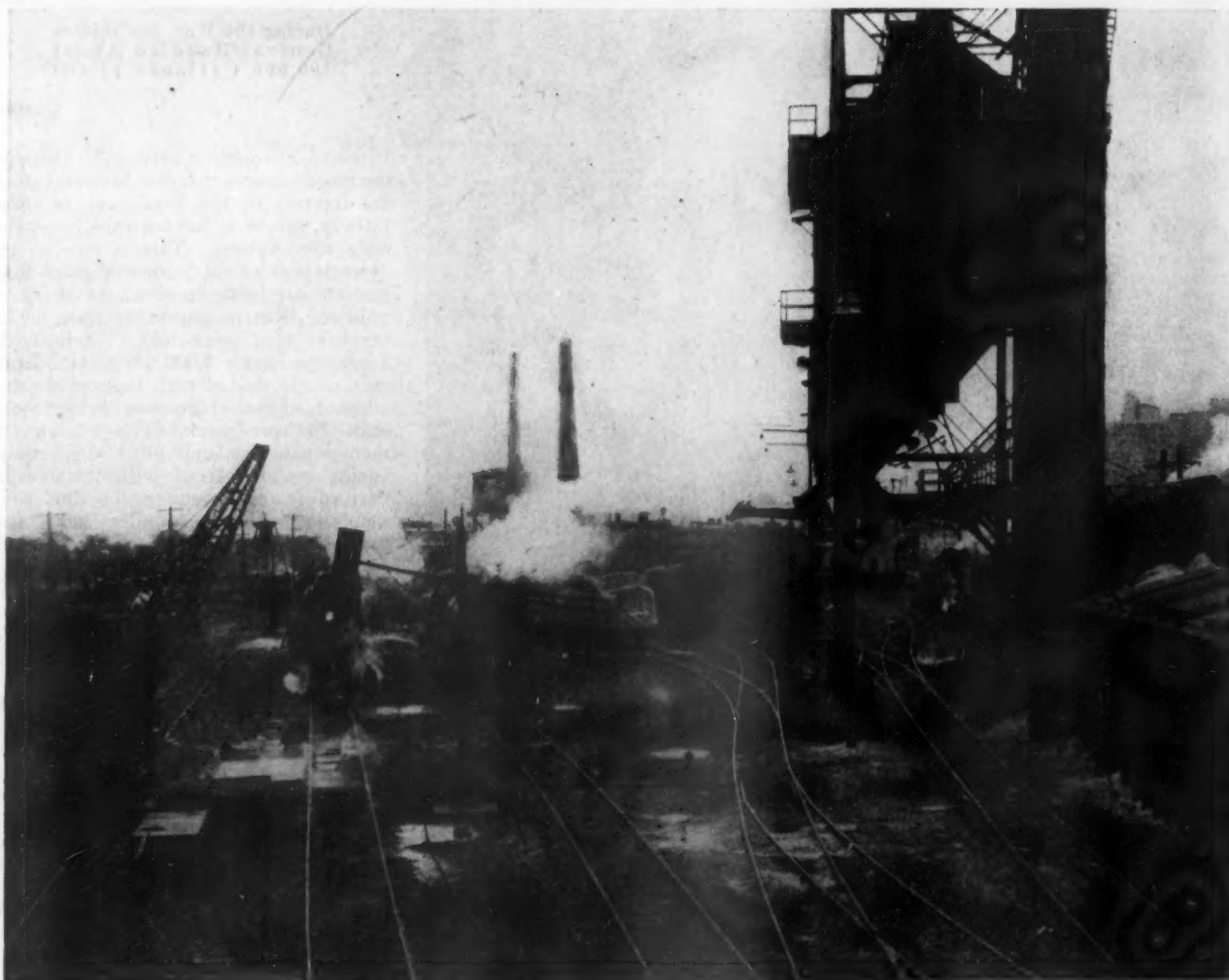
### Man-Power Problems

Along with other railways, the I. C. experienced a drain on its man-power, nearly 10,000 officers and employees having entered military service; and other thousands left railway service for war plant jobs. The effects of this were anticipated early in the war and the I. C. organized one of the most complete systems of training schools for

new employees of any railway in the country. From a small beginning, this training of youngsters produced such successful results that four schools were eventually established—at Chicago, Carbondale, Memphis and Louisville. More than 4,000 youths have been trained in such schools as firemen, brakemen and switchmen. A school for telegraphers also produced an unusual number of competent graduates who are now holding down jobs.

The use of women as members of train crews assisted materially in the large, electrified, suburban service operations in the vicinity of Chicago. When the shortage of freighthouse labor became acute, "white-collar" workers from the general offices volunteered in large numbers to assist on the platform after office hours. That these relatively inexperienced workers were well grounded in the principles of safety is indicated by the low personal injury rate, which has induced the National Safety Council to make special awards to the I. C. of its "S" pennant, for outstanding safety records.

For many years, the I. C. has stressed the theme that it is a "family" railway and its recent advertising has been directed particularly to this theme. To educate its employees, thousands of manuals have been distributed. These are entitled "Making and Holding



**Improved Enginehouse Facilities Aided the Illinois Central in Solving War-Time Motive Power Problems**

of mechanized material handling equipment. The I. C. had, prior to the war, purchased large quantities of modern shop machinery, so that, apart from the increased use of portable cranes, no other additions were necessary.

Enginehouse improvements have included the installation of modern lighting; new coal, sand and cinder handling facilities; and heavier and longer turntables, involving the substitution of the three-point for the balanced type. At present at all the major terminals, locomotives are handled and serviced under cover in heated enginehouses, thus eliminating weather interference. Water treating equipment has been installed at all stations where the volume of traffic justifies the expense. In other territories, locomotive tenders have been equipped with an automatic feeder which supplies the proper amount of treating compound to the water in the tender. All high-speed main lines are being re-laid with 112-lb. or heavier rail and if rail and other track materials is available this program will be completed by the end of 1946.

In 1944 the Louisville line crossing the Tennessee river at Gilbertsville was relocated over a distance of 5.5 miles

and now crosses the river on the top of the Kentucky dam of the Tennessee Valley Authority, relieving the old bridge built in 1904. The bridge across the Yazoo river near Vicksburg, Miss., was replaced on an offset location. The overall length is 1,150 ft., with 880 ft. of steel structure, including a 285-ft. swing draw span.

Major improvements have been made in the main passenger stations at Chicago, at Louisville, Ky., at Dubuque, Ia., and in many smaller stations. Other bridge and station repairs and improvements have continued currently.

### **Post-War Plans**

The combination of preparedness for heavy traffic and continuing improvements during the war enabled the Illinois Central to emerge from the war with an excellent record for handling large quantities of emergency traffic, both freight and passenger, and still have its plant in good shape for the post-war transportation needs of the territory it serves.

These needs have been carefully studied. Traffic, industrial and agricultural experts have engaged in much

research looking toward potential traffic. In 1944, for example, new industries, principally of a non-war nature, located along the railway, are estimated to have a peace-time shipping potential of 36,000 cars of new business annually. To build up livestock and farm production, I. C. agricultural agents held more than 400 public meetings in 1944, attended by 17,000 people. Increasing the production of small grain in the South, particularly in the delta region of Mississippi, has resulted in plans for four new grain elevators, the first such local cash markets ever available in Mississippi. The railway continues its supply of purebred Jersey and beef-type bulls to the farmers for breeding purposes, to improve the quality of the livestock produced along its lines.

Immediately after V-J day, the I. C. sent two of its representatives to South America to study and report on the possibilities of Latin America as a market for the sale of products from the United States and as a source of materials for use in this country.

Thus, the Illinois Central is "forging its sword into a plowshare," and devoting its war-time energies to the promotion of a prosperous peace.



# Freight Diesels on Heavy Grades

**D. & R. G. W. cost records show the value of Diesel freight locomotives under difficult operating conditions**

**U**NDER most severe conditions of grade and curvature and with shop facilities which are still incomplete, the Denver & Rio Grande Western has established an enviable performance record for Diesel-electric locomotives in freight service. Operating conditions are indicated by the fact that fuel consumption on the D. & R. G. W. averages 2.51 gal. per thousand gross ton-miles, while that on another road which has few heavy grades and which operates the same number of freight locomotives is only 1.59 gal. per 1,000 g. t. m. In spite of adverse conditions, the D. & R. G. W. is able to show a total operating and maintenance cost for Diesel-electric locomotives of 52.9 cents per 1,000 g. t. m. after 2,682,361 locomotive-miles of operation. This cost includes accidental damage to locomotives and wages paid to traveling maintainers.

The railroad started using Diesel-electric locomotives in February, 1942, and now has 12 four-unit freight locomotives in service, the newest one having been acquired in October, 1944. The cost data in the table shows monthly and cumulative figures for the oldest locomotive, for a locomotive of average age, for the newest locomotive and for all of the twelve locomotives.

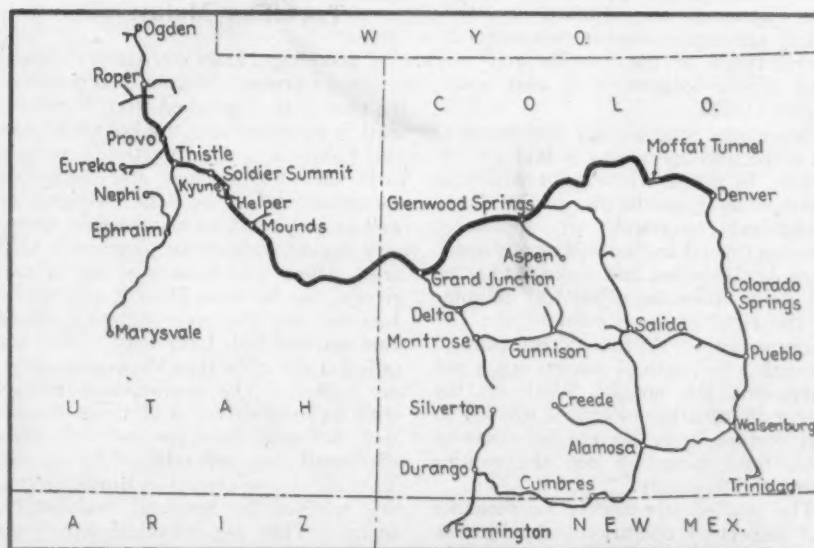
## Operation

Diesel electric freight locomotives are operated normally in through freight service between Denver, Colorado, and Salt Lake City, Utah, a distance of 570 miles. Occasionally a Diesel locomotive is used on a passenger train when traffic conditions make this desirable and infrequently Diesel power is used on freight trains over the Royal Gorge route through Pueblo, Colorado.

The grade westbound from Denver to the Moffat Tunnel (50 miles) is two per cent compensated. Westbound from Helper, Utah, to Kyune (12½ miles) the grade is from 2 to 2.4 per cent compensated. Eastbound from Thistle, Utah, to Soldiers Summit (29.5 miles) the grade is 2 per cent compensated. There are also four other sections of 8 to 18 miles in both directions which have grades of from 1 to 1½ per cent.

Tons per train on heavy-grade sections are about 2,500, steam helpers being used to take care of greater train tonnages. Average train-miles per hour are 16 to 17, minimum speeds on uphill movement are limited to 15 m. p. h. and are otherwise controlled by timetable restrictions. Maximum speed for freight trains is 55 m. p. h.

All inspections, running repairs and about half the routine maintenance oper-



**Map of the D. & R. G. W. Lines Showing the Section (Indicated by Heavy Lines) on Which Diesel Freight Power Is Used**

ations are performed at the Burnham shops in Denver, while part of the routine maintenance operations and emergency repairs are performed enroute while handling trains, this work being done by the traveling Diesel-electric maintainers.

On arrival at Burnham, following the completion of a round trip, the locomotive is moved from the "tie-up" track by the hostler either to the outside fueling station or directly into the Diesel service shop which is also equipped with fueling facilities. The locomotive is fueled by storehouse personnel and sand tanks are filled by laborers assigned to Diesel shop forces. Exterior cleaning of the locomotive is done by a gang assigned to this work. A second group cleans cabs and engine rooms, the cabs and locomotive glass being cleaned every trip and the engine rooms as their need requires.

Immediately following locomotive arrival, engine lubricating oil samples that have been taken from each Diesel engine by the TDEM (traveling Diesel electric maintainer) prior to arrival at Burnham are delivered to the laboratory. Here, analysis is made for viscosity, flash point and other characteristics to determine oil condition and engine safety. An unfavorable report from the laboratory may indicate faulty injector operation, leaking fuel oil lines, or other engine conditions.

The Diesel maintenance foreman or lead man boards the locomotive on arrival at Burnham and removes the locomotive trip report and the engineman's

work report. The TDEM lists maintenance and inspection operations which have been made on that trip on the trip report and notes repairs which are required. From this report, the Diesel foreman prepares the terminal maintenance record. All work required by the terminal forces is listed on the maintenance record. Work done by the TDEM enroute is subtracted and requirements other than routine are added. Following completion of their assigned tasks, the persons doing the work place their initials after the completed item on the terminal maintenance record.

Routine maintenance and inspection operations are grouped in five general classifications: mechanical, electrical, air appliance, pipe and sheet-metal, and miscellaneous. Machinists, electricians, pipe and sheet-metal workers and their helpers and laborers are assigned their respective duties from these classified operations. If any part or assembly of the locomotive is changed out, the change is noted on a parts-record card with the date of change, note of the position on the locomotive, the mileage accrued in that position, the total mileage accumulated, the service mileage remaining in part, whether part is operating in service, is in store stock, or is in shop undergoing reconditioning.

## Servicing En Route

At Salt Lake City, Utah, fuel and lubricating oil tanks are filled to capacity, and spare supply cans of lubricating oil are filled. Brake shoes are inspected



and necessary replacements made. Brake-cylinder piston travel is set to proper dimension. Engine cooling systems are filled to capacity and auxiliary water tanks supplied. A general exterior and interior inspection of the locomotive is made.

At Grand Junction, Colorado, on both eastward and westward movements, fuel and lubricating-oil supply and cooling-water systems are checked by the TDEM and replenished if necessary. A general check of the interior and exterior of the locomotive is also made by the TDEM.

The master schedule for maintenance and inspection operations is laid out on a 30-in. by 60-in. white print which is placed under glass in the service shop. Mechanical, electrical, air appliance, pipe-sheet metal and miscellaneous operations are grouped and make a total of 140 items listed in a vertical column. To the right of these columns are 150 spaces or trips. At the correct mileage intervals, the various maintenance requirements are noted. Work on the four units of a locomotive is divided so that certain items do not all come at once, thus spreading out the routine maintenance evenly.

The master schedule of maintenance and inspection operations, the locomotive trip sheet and the terminal maintenance record are used to set up, work from, and provide a complete signed record of all the service operations and related information pertaining to a particular locomotive on each trip. Following the completion of all work and its

recording on the three forms, the trip report and the terminal maintenance record are clipped together and sent to the office of the Diesel supervisor. He examines these records to determine if the work is being properly handled and the reports are then filed consecutively by locomotive trips. These reports are retained for a period of three years.

### Traveling Maintainers

A traveling Diesel electric maintainer is always present on a locomotive from the time it is dispatched from Burnham until it returns from the round trip to Salt Lake City. His function is to perform such maintenance and inspection operations as can be done en route, as well as such work as may become necessary due to accident or locomotive failure. These maintainers work in two groups, one between Denver and Grand Junction and the other between Grand Junction and Salt Lake City. They are called at the same time the engine crews are called. The maintainers remain with the locomotives at all times enroute and at Grand Junction and Salt Lake City until they are relieved by another TDEM. Upon arrival at Burnham they are relieved by terminal maintenance forces. Thus a mechanical-department employee is in constant attendance on Diesel freight locomotives at all times.

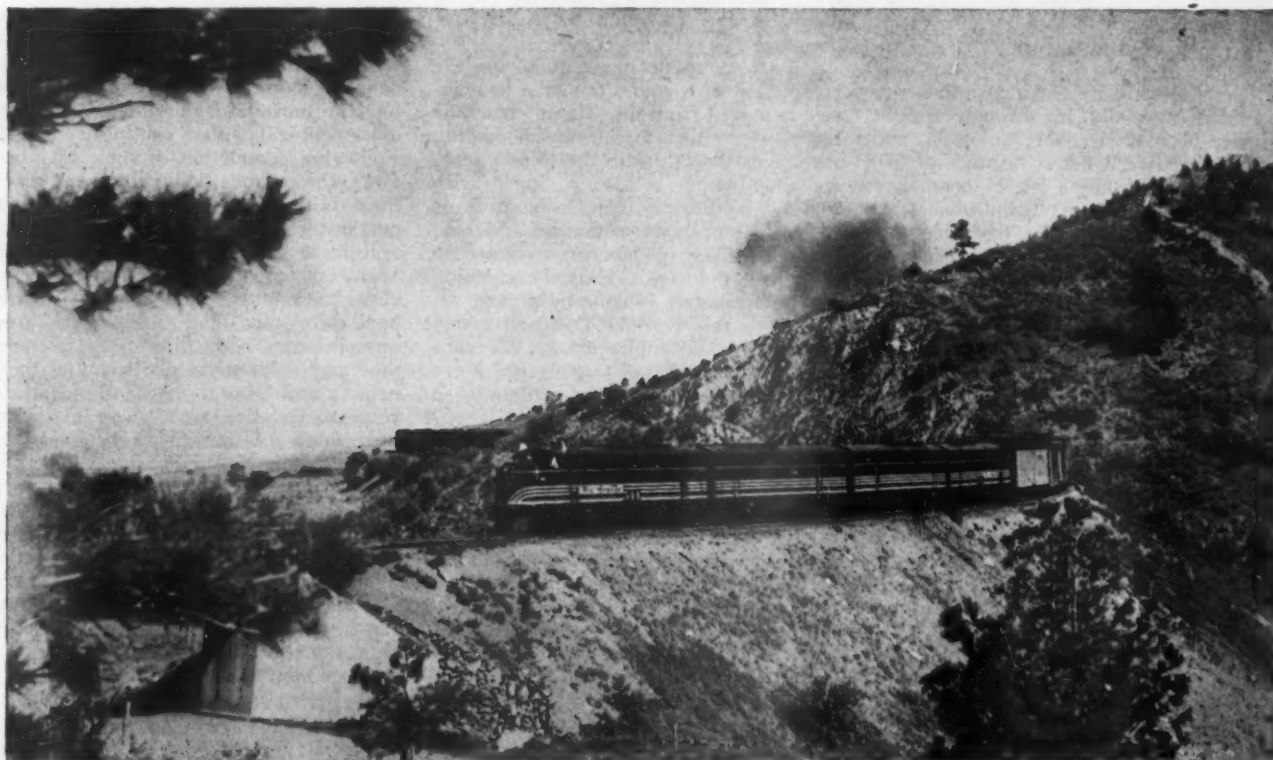
Three reports, a trip report, a fuel-consumption report and a delay report are filled out by the TDEM. On the trip report there are usually about 45 of the 140 items listed on the master

maintenance and inspection schedule. Each man performs such operations as time and operating conditions permit, placing his initials on the report at the right of all operations and work completed. On the fuel consumption report, the TDEM records the amount of fuel in the tanks at departure, the amount in the tanks at each division point, fuel additions made enroute and the amount remaining at the end of the trip.

The delay report is used to record major delays, giving location of delay, beginning and terminating time of delay, total elapsed time and reason for delay. Reports of mechanical failures or other deviations from outlined procedures are also made by the maintainers.

Operating experience has satisfied the management that the use of traveling maintainers is in considerable measure responsible for reducing costs of operation and maintenance. The work these men perform enroute reduces terminal man-hours about 40 per cent, relieving shop congestion and reducing the time the locomotive is not available to the operating department. Items such as inspection of upper cylinder mechanism, air-box inspection and crank-case inspection plus many minor but important adjustments can be made with one engine shut down for short periods of time.

Some improper operations can only be detected with the locomotive under load and in some cases only after 30 minutes of full-load operation. There are also minor faults which, if allowed to develop, would result in costly failures. The maintainers protect the locomotive



Twelve Four-Unit Locomotives Move Freight Over the 570-Mile Line Between Denver, Colo., and Salt Lake City, Utah—The Line Is Characterized by Steep Grades, Tunnels and Heavy Curvature

# **Cost of Operating 5,400-Hp. Diesel-Electric Freight Locomotives—Month of June, 1945, and Cumulative Cost from Date Placed in Service to June 30, 1945**

[Note: Figures include the oldest locomotive, an average-age unit, the newest unit and cumulative data for 12 locomotives]

Locomotive Number	540		546		551		Total	
	This Month	Cumulative From 2-5-42	This Month	Cumulative From 12-28-43	This Month	Cumulative From 10-3-44	This Month	Cumulative From
Builder	G. M. Corp.	(E. M. Div.)	G. M. Corp.	(E. M. Div.)	G. M. Corp.	(E. M. Div.)		
Mileage	10,498	398,748	10,341	181,687	10,945	89,733	104,574	2,682,631
Potential Service Hours	720	29,797	720	13,220	720	6,361.5	7,366	198,276.5
Hours in Service	596.5	23,980.5	627	11,182.5	625.5	5,323.5	6,284.5	163,280
Per cent of Potential Hours Worked	82.85	80.48	87.08	84.59	86.88	83.68	85.32	82.35
<b>COST OF MAINTENANCE</b>								
Diesel Engine and Appurtenances								
Labor	768	36,959	754	13,764	798	6,598	10,075	219,948
Diesel Engine and Appurtenances								
Matl.	440	25,942	160	4,747	217	2,000	3,970	129,064
Generators, Motors and Elect.								
Equip.—Labor	547	21,304	452	9,540	522	4,706	5,214	143,308
Generators, Motors and Elect.								
Equip.—Matl.	168	28,829	87	3,222	181	1,495	3,651	123,234
Mechanical	308	19,650	260	7,431	219	2,803	3,038	116,289
Mechanical	172	14,540	73	2,891	63	1,283	1,361	91,278
<b>TOTAL MAINTENANCE</b>	<b>2,403</b>	<b>147,224</b>	<b>1,786</b>	<b>41,595</b>	<b>2,000</b>	<b>18,885</b>	<b>27,309</b>	<b>823,121</b>
Salary and Expenses Supervisors and Traveling Maintainers, (Incl. in Above)	946	36,379	896	18,091	931	8,323	9,463	255,119
<b>COST OF OPERATION</b>								
Wages—Train Motorman	3,039	89,342	2,845	48,621	3,007	23,985	29,856	656,506
Wages—Trainmen	2,942	99,880	2,904	50,572	2,718	26,555	29,449	709,143
Fuel	3,192	144,336	3,397	66,000	3,559	31,742	33,853	977,396
Water	0	25	1	21	0	13	3	248
Lubricants	662	23,908	833	11,671	471	4,573	7,687	174,056
Supplies	16	1,232	15	553	14	334	217	8,250
Enginehouse Expense	251	7,236	236	3,000	260	1,969	2,809	46,528
<b>TOTAL OPERATION</b>	<b>10,102</b>	<b>365,959</b>	<b>10,231</b>	<b>180,438</b>	<b>10,029</b>	<b>89,081</b>	<b>103,874</b>	<b>2,572,127</b>
<b>TOTAL MAINTENANCE AND OPERATION</b>								
	<b>12,505</b>	<b>513,183</b>	<b>12,017</b>	<b>222,033</b>	<b>12,029</b>	<b>107,966</b>	<b>131,183</b>	<b>3,395,248</b>
Gallons Fuel Oil	52,912	2,388,303	56,264	1,088,674	59,014	526,429	560,727	16,149,626
Gallons Lubricating Oil	1,237	43,674	1,561	21,083	874	8,706	14,519	319,310
<b>COST PER MILE</b>								
Maintenance—Running Repairs								
Labor	.155	.195	.142	.169	.141	.157	.175	.179
Running Repairs—Matl.	.074	.174	.031	.060	.042	.053	.086	.128
<b>TOTAL MAINTENANCE</b>	<b>.229</b>	<b>.369</b>	<b>.173</b>	<b>.229</b>	<b>.183</b>	<b>.210</b>	<b>.261</b>	<b>.307</b>
Operation—Wages—Train								
Motormen	.289	.224	.275	.268	.275	.266	.286	.245
Trainmen	.280	.251	.281	.278	.248	.296	.282	.265
Fuel	.304	.362	.328	.363	.325	.354	.324	.364
Water	.000	.000	.000	.000	.000	.000	.000	.000
Lubricants	.063	.060	.081	.064	.043	.051	.073	.065
Supplies	.002	.003	.001	.003	.001	.004	.002	.003
Enginehouse Expenses	.024	.018	.023	.017	.024	.022	.027	.017
<b>TOTAL OPERATION</b>	<b>.962</b>	<b>.918</b>	<b>.989</b>	<b>.993</b>	<b>.916</b>	<b>.993</b>	<b>.994</b>	<b>.959</b>
<b>TOTAL MAINTENANCE AND OPERATION</b>	<b>1.191</b>	<b>1.287</b>	<b>1.162</b>	<b>1.222</b>	<b>1.099</b>	<b>1.203</b>	<b>1.255</b>	<b>1.266</b>
Average Gallons Per Mile—Fuel Oil	5.040	5.990	5.441	5.992	5.392	5.867	5.363	6.021
Average Gallons Per Mile—Lubricating Oil	.118	.110	.151	.116	.080	.097	.139	.119
<b>HOURS OUT OF SERVICE—</b>								
Federal Inspection	8	377	7.5	166.5	8	71.5	80.5	2,486
Repairs	42	3,038.5	29	882.5	33	508	435.5	17,813.5
Operating Expedients	73.5	2,401	56.5	988.5	53.5	458.5	565.5	14,697
<b>TOTAL HOURS OUT OF SERVICE</b>	<b>123.5</b>	<b>5,816.5</b>	<b>93</b>	<b>2,037.5</b>	<b>94.5</b>	<b>1,038</b>	<b>1,081.5</b>	<b>34,996.5</b>
Gross Ton Miles (In Thousands)	22,363	957,948	22,028	423,675	23,315	204,395	221,353	6,420,261
Cost Per Thousand Gross Ton Miles (In Cents)	55.9	53.6	54.6	52.4	51.6	52.8	59.3	52.9

tive against improper handling by engine crews, avoiding excess operating temperatures. It is one of their functions to guard against reductions of speed below the safe minimum requirements. The repair of leaking oil, water and air lines frequently corrects a condition which would have caused an engine failure. In the case of minor accidents repairs are made which quickly restore the operating condition of the locomotive so it can continue with full tonnage.

Records show that the traveling maintainers, by preventing trouble, make the locomotives available for operation 99.96 per cent of the time they are in the hands of the operating department. The Diesels are essentially electric lo-

comotives and 95 per cent of all delays enroute are caused by minor electrical faults which can usually be corrected quickly by the maintainer. As the cost of a delay of one hour (not including loss of revenue due to failure to advance the train) the superintendent of Diesel equipment offers the following figures: cost of train crew, \$12.72; cost of Diesel fuel, \$1.00; interest and depreciation on idle locomotive, \$6.02; freight-car per diem charges (50 cars), \$2.08; total, \$21.82.

## **Road Emergencies**

Instances indicating the emergency value of the maintainers are as follows: On engine No. 541 the repair of a trac-

tion-motor blower belt prevented overheating of motors; discovery on engine No. 551 of a failure in the No. 6 cylinder which allowed combustion gases to flow into the crank case prevented a crank-case explosion; a peculiar noise in the No. 1 cylinder of engine No. 545 caused the maintainer to shut down that unit and subsequent examination disclosed that the piston had broken in such a manner as to allow the connecting rod with the piston carrier to become free in the liner. Five minutes operation would probably have caused the connecting rod to break through the liner, necessitating an engine replacement costing from \$5,000 to \$10,000. Maintainers must be trained specially and most of them are taken from the shop forces.



# Wood Preservation Gains 6 Per Cent

Three classifications registered sufficient increases to more than offset decreases in five others despite continued shortages of manpower in all cutting areas

**D**ESPITE restrictions imposed as a war-time measure on the use of forest products for private and industrial uses and the continued shortage of manpower in all cutting areas, wood preservation increased 6 per cent in 1944, compared with 1943. This increase was not general, however, for gains were registered in only three of the eight classifications into which treated wood is divided, the remaining five classifications having shown decreases ranging up to as much as 69 per cent. However, the foregoing statements give a somewhat distorted picture of the situation since some of the largest decreases occurred by reason of a marked reduction, amounting to approximately 90 per cent, in the amount of wood given fire-retardant treatment.

During 1944 a total of 277,686,727 cu. ft. of wood was given preservative treatment, this being 16,547,747 cu. ft., or 6 per cent, more than was treated in 1943, according to figures compiled by R. K. Helphenstine, Jr., Forest Service, United States Department of Agriculture, in co-operation with the American Wood-Preservers' Association.

It is of more than passing interest, however, that, despite this mild recovery from the somewhat decided slump that occurred in 1943 as a result of severe war restrictions and an equally severe shortage of labor, the amount of wood treated in 1944 has been exceeded only twice since 1930, and only seven times in the 36 years that these statistics have been compiled.

## Railways Still Chief Consumer

As in all previous years since the inception of the wood-preserving industry, the railways in 1944 maintained their position as the principal consumer of treated wood. Previous to 1939 this position had been assured by the fact that crossties alone constituted more than 50 per cent of the total volume of timber treated each year, and only the railways use ties. However, from 1939 to 1941 crossties fell below 50 per cent of the total volume of wood treated during those years, although when switch ties and other materials, such as piles, poles, posts, structural timbers, lumber and numerous miscellaneous items were



Loading Out Freshly-Treated Crossties at a Treating Plant in the South

added, the total consumption by the railways still approximated two-thirds of the total volume of the wood treated in each of these years.

In 1942 crossties and switch ties combined again aggregated 56.3 per cent of the total; in 1943 the ratio of crossties to all wood treated rose to 55.4 per cent, while crossties and switch ties combined represented 59.8 per cent, and the railways consumed considerably more than two-thirds of all of the wood given preservative treatment. In 1944 the ratio of crossties to total wood treated in-

creased still further to 57.3 per cent and, together with switch ties, represented 61.2 per cent of the total, while the consumption of all classes of treated wood by the railways was well over 70 per cent.

Of the total volume of wood treated, crossties accounted for 159,133,794 cu. ft., this being an increase of 14,446,593 cu. ft. over the 144,687,201 cu. ft. treated during the previous year. Numerically, a total of 53,044,598 crossties was given preservative treatment in 1944, an increase of 4,815,531 over the number

## Wood Preservation 1909-1944

Year	Together with Consumption of Creosote and Zinc Chloride		Zinc chloride used, lb.*	
	Total material treated, cu. ft.	Number crossties treated	Creosote used, gal.	
1909.....	75,946,419	20,693,012	51,426,212	16,215,107
1910.....	100,074,144	26,155,677	63,266,271	16,802,532
1911.....	111,524,563	28,394,140	73,027,335	16,359,797
1912.....	125,931,056	32,394,336	83,666,490	20,751,711
1913.....	153,613,088	40,260,416	108,373,359	26,466,803
1914.....	159,582,639	43,846,987	88,764,050	27,212,259
1915.....	140,858,963	37,085,585	84,065,005	33,269,604
1916.....	150,522,982	37,469,368	96,079,844	26,746,577
1917.....	137,338,586	33,459,470	83,121,556	26,444,689
1918.....	122,612,890	30,609,209	56,834,248	31,101,111
1919.....	146,060,994	37,567,927	67,968,839	43,483,134
1920.....	173,309,505	44,987,532	70,606,419	49,717,929
1921.....	201,643,228	55,383,515	77,574,032	51,375,300
1922.....	166,620,347	41,316,474	87,736,071	29,868,639
1923.....	224,375,468	53,610,175	128,988,237	28,830,817
1924.....	268,583,235	62,632,710	158,519,810	33,208,673
1925.....	274,474,539	62,563,911	169,723,077	26,378,658
1926.....	289,322,079	62,654,538	188,274,743	24,777,020
1927.....	345,685,804	74,231,840	221,167,895	22,162,718
1928.....	335,920,379	70,114,405	222,825,927	23,524,340
1929.....	362,009,047	71,023,103	226,374,421	19,848,813
1930.....	332,318,577	63,267,107	215,904,421	13,921,894
1931.....	233,334,303	48,611,164	155,437,247	10,323,443
1932.....	157,418,589	35,045,483	105,671,264	7,669,126
1933.....	125,955,828	22,696,565	85,180,709	4,991,792
1934.....	155,105,723	28,439,587	119,049,604	3,222,721
1935.....	179,438,970	34,503,147	124,747,743	4,080,887
1936.....	222,463,994	37,952,129	154,712,999	4,127,886
1937.....	265,794,186	44,803,239	183,574,581	4,833,935
1938.....	244,221,442	44,598,678	166,183,891	4,829,590
1939.....	245,219,878	35,748,845	163,864,259	4,522,070
1940.....	265,473,149	42,666,598	174,625,305	5,180,896
1941.....	319,164,422	47,664,019	215,467,780	5,786,424
1942.....	312,934,621	54,175,380	216,347,768	5,051,263
1943.....	261,138,980	48,229,067	177,786,315	3,122,302
1944.....	277,686,727	53,044,598	188,758,182	2,836,420

\* Includes chromated zinc chloride.



# Treatment of Miscellaneous Material—Ft. b. m.

	1944	1943	1942	1941
Lumber	197,613,878	270,525,549	287,191,977	281,006,886
Fence posts	40,319,095	21,255,494	37,401,538	28,061,805
Tie plugs	3,514,076	2,146,370	1,694,468	2,222,766
Crossing plank	None reported	None reported	None reported	1,360,584
Car lumber	183,320	159,792	272,103	220,668

treated in 1943. Except for 1942, in which year many ties were treated for the construction of tracks to serve war industries, training camps and other military and naval installations, this was the largest number treated in any year since 1930.

## What Woods Were Used

As in 1943, oak ties ranked first in number, with 18,511,304, or 34.9 per cent of the total number of ties treated. Southern pine continued in second place with 12,046,136 ties, or 22.71 per cent of the total. Douglas fir also continued to rank third, with 6,737,109 ties, representing 12.7 per cent of the total; and gum again stood in fourth place, with 5,540,479, or 10.44 per cent of the total number of cross-ties treated in 1944. Ties of other woods given preservative treatment during the year included beech, tamarack, lodgepole pine, maple, ponderosa pine, birch, hemlock and elm, in the order given, aggregating 14.01 per cent of the total, while 2,781,261 cross-ties, or 5.24 per cent of the total, of woods other than those mentioned were given preservative treatment.

Of the total number of cross-ties treated during the year, 31,472,309, or 59.33 per cent, were impregnated with straight creosote or solutions of creosote and coal tar; 21,165,744, or 39.9 per cent, were treated with solutions of creosote and petroleum; and 376,876 ties, or 0.71 per cent, were treated with either zinc chloride or chromated zinc chloride; while all other preservatives accounted for only 29,669 ties, or 0.07 per cent, of the total number of ties given preservative treatment during the year. All of these cross-ties were treated by pressure processes.

During the year, 34,490,239 ties, or 65 per cent of the total, were adzed and bored before treatment; 1,206,890, or 2 per cent, were adzed but not bored; 2,637,311, or 5 per cent, were bored but not adzed; and 14,710,158, or 28 per cent, were neither adzed nor bored.

The quantity of switch ties given preservative treatment in 1944 amounted to 132,274,138 ft. b.m., a decrease of 6,724,781 ft. b.m., compared with the quantity treated in 1943. In this classification also oak ranked first with 73,928,232 ft. b.m., or 55.9 per cent of the total; southern pine held second place with 16,986,620 ft. b.m., or 12.8 per cent of the total; while Douglas fir was in third place with 15,050,656 ft. b.m., or 11.4 per cent of the total; and gum retained fourth place with 12,718,952 ft. b.m., or 9.6 per cent of the total. The remaining 10.3 per cent included maple, tamarack, beech, birch, elm, ponderosa pine, lodgepole pine and a few miscellaneous species.

Continuing the temporary trend that

was so marked in the previous year, the quantity of piles given preservative treatment showed a further decrease of 3,433,310 lin. ft., or 11.2 per cent, from 30,590,022 lin. ft. in 1943 to 27,156,712 lin. ft. in 1944. Reversing their rank, Douglas fir moved up to first place with 13,978,126 lin. ft., or 51.5 per cent of the total, while southern pine, which had stood well ahead of all other species for many years, dropped to second place with 12,778,436 lin. ft., or 47 per cent of the total. The remaining 1.5 per cent was made up of oak, red (Norway) pine and a few miscellaneous species. All but 31,006 lin. ft. of the piles treated during the year were impregnated with creosote, solutions of creosote and coal tar, or with solutions of creosote and petroleum, and all but 15,840 lin. ft. were treated by pressure processes.

In contrast with the marked decrease in the treatment of poles that was registered in the previous year, 2,993,823 poles were given preservative treatment in 1944, a gain of 965,599, or 47 per cent over the number treated in 1943. Of the total number of poles treated, 2,243,319, or 74.9 per cent, were of southern pine; 493,198, or 16.4 per cent, were of western red cedar, and 117,419, or 3.9 per cent, were of northern white cedar. The remainder, 139,887 poles, or 4.8 per cent, consisted of lodgepole pine, Douglas fir and a few miscellaneous woods in the order named. The number of southern pine poles reported in 1944 represents an increase of 65 per cent over the number for this species treated in the previous year. Creosote was used in the treatment of all but 60,137 poles and of the total number reported, 2,369,330, or more than 79 per cent, were given full-length pressure treatment, while 624,493, or 21 per cent, were given non-pressure (open-tank) treatment.

## What Preservatives Were Used

In 1944 the wood-preserving industry consumed 188,758,182 gal. of creosote, compared with 177,786,315 gal. consumed in 1943, an increase of 10,971,867 gal., or 6.2 per cent. It is of interest that, despite the restrictions that limited the output of forest products, the amount of creosote consumed in 1944 has been exceeded only twice since 1930, and only six times during the 36 years that these statistics have been compiled. Solutions of creosote and petroleum consumed 33,908,339 gal. of petroleum compared with 28,439,733 gal. in 1943, an increase of 5,468,606 gal. This volume of petroleum was used in the preparation of 67,733,132 gal. of such solutions, an increase of 5,468,606 gal.

Although the consumption of zinc chloride fell off sharply, that of chro-

mated zinc chloride made a slight gain, the consumption of the former being 671,385 lb., or 343,361 lb. less than was consumed in 1943; the increase in the chromated salt was 57,479 lb., from 2,107,556 lb. in 1943 to 2,165,035 in 1944. Included in the foregoing figures are 31,173 lb. of zinc chloride and 158,900 lb. of chromated zinc chloride that were used in fire-retardant treatments.

The consumption of Wolman salts was greater by 12,940 lb. in 1944 than in 1943, having risen from 769,316 lb. in the latter year to 782,256 lb. in 1944. There was a reduction of 42,013 lb. in the consumption of zinc meta arsenite and of 29,615 lb. in that of Celcure in 1944.

In addition to the preservatives already mentioned, 2,315,830 lb. of miscellaneous salts and 48,175 gal. of miscellaneous liquids were consumed by the wood-preserving industry during the year. This represents a decrease of 18,616,680 lb. of miscellaneous salts, but a gain of 24,753 gal. of miscellaneous liquids. A total of 1,921,894 lb. of the salts were used in fire-retardant treatments, leaving only 393,936 lb. that were used specifically for preservative treatments.

The quantity of miscellaneous material given preservative treatment in 1944 aggregated 265,950,998 feet. b.m., compared with 313,832,881 ft. b.m., in 1943, a decrease of 47,881,883 ft. b.m., or 15.2 per cent. Despite this decrease, however, the volume of miscellaneous material treated in 1944 has been exceeded only four times in the 36 years that this record has been compiled. Selected items that are used only by the railways or in large quantity by them are shown in the accompanying table. Included in the foregoing figures of miscellaneous material are 6,416,218 ft. b.m. of lumber that were impregnated with fire-retardant chemicals. Only 6,983,480 ft. b.m. of the miscellaneous material were treated by non-pressure (open-tank) processes, the remainder being given pressure treatment, and 66 per cent was impregnated with creosote or creosote-coal tar solutions.

During the year, a total of 8,527,428 ft. b.m. of wood was given fire-retardant treatment. This represents a reduction of 57,109,090 ft. b.m. from the quantity given this form of treatment in 1943. This marked reduction is explained by the fact that the navy, which was the principal consumer, had completed the construction of its huge blimp hangars in 1943, and did not, therefore, require further treatments of this type in such large quantities.

During the year there were 235 treating plants in the United States, one more than in 1943. Of these, 222 were active, 11 were idle and two were abandoned. Only two plants were constructed during the year. Of the total number of plants in existence, 189 were commercial plants that treat wood for sale or by contract; 22 were owned and operated by the railways; and 24 were owned and operated by public utilities, mining companies and others to supply their own needs.

# A Formula for Railroad Prosperity

**Must establish public preference, which requires alert management and employee co-operation, plus vigorous publicity effort to win recognition of carriers' merits**

**T**HESE last four turbulent years have been a hard road for the railroads and uphill all the way, but we have covered every step of it without any faltering or delay. We have accepted every task that has been assigned to us and have carried it through to completion as specified and on time. Now, however, we are turning our backs on the past and peering into the future. We want to make out as clearly as we can the road ahead, to see where we are going, to find out what will be expected of us in the days to come.

## Railroads Not Inevitable

There's nothing especially holy or sacrosanct or inviolable about a railroad or a railroad job. We must realize that the future of the railroads and of our jobs is a matter of creating and holding public preference in a highly competitive post-war field. We must remember there's very little anyone absolutely *has* to do except be born and die. Nearly everything else in human life and affairs is a matter of simple preference—each of us wants or learns to want one thing more than he wants another, and he gives up the alternative in order to enjoy the thing he prefers. Railway customers are human, too, and they either like us and want us or they don't.

It is my belief that the future of the railroads depends a great deal more upon the creation and maintenance of a public preference than upon almost any other factor we might name. In creating such a preference, we must have objectives that can be understood and appreciated by all—not only by our own people and by the suppliers who produce the materials we work with but also by the public we are aiming to keep on serving. As a text for that, I might quote a summary of practical ideals which I have been preaching up and down the Mississippi Valley in recent months, as follows:

## Deeds to Match Promises

"We must have railroads in and for America—solvent railroads, strong railroads, manned by alert and respected workmen, directed by progressive management, modernized to fit the needs of post-war America, operating under sound policies of government, and commanding the confidence of the American people."

This article is an abstract of an address by Mr. Johnston to the Western Railway Club on October 15.

By **WAYNE A. JOHNSTON**  
*President, Illinois Central*

That statement could be taken by cynics as constituting only so many words. Some might say it is like the letter that Cautious Clem wrote to his best girl. It ran like this:

"Darling Daisy, I would swim the mighty ocean for one glance from your dear eyes. I would walk through a wall of flame for one touch of your little hands. I would leap the widest stream for one word from your lovely lips. As always, your Clem. P.S.: I'll be over Saturday night if it doesn't rain."

Some may think that words and deeds are as little related in post-war railway planning as in that epistle by Clem. If we want to succeed we must have deeds to back up our words—deeds which will win friends and influence people for railroading.

In my text, I place first the need for *solvent* railroads, because under free enterprise we can have no other—and the prospect of having other than continued free enterprise in this nation of ours is, to me, virtually unthinkable. We must have railroads that will take in more than they spend; that will have rates attractive to traffic yet fully remunerative; that will pay good wages for good work; that will buy, build, support and maintain a railway plant responsive to every call upon it and yet lay enough aside for an ample return on the investment—a return attractive enough to keep drawing the flow of capital needed to provide a continued supply of efficient, work-saving, progressive, capacious tools. These will be railroads solvent all the way through, not leaning on the government here or the government there, able to stand on their own feet and to provide an example convincing to all friends of private enterprise.

In my text, I place second the need of our nation for strong railroads. By that I do not mean railroads strong merely in track and power and cars and traffic possibilities. I mean railroads strong in character and ideas, strong in the pioneering fervor which first brought railroading into the top place among all American carriers. I mean railroads with inquiring minds, strong in the willingness to take a chance, to progress, to go ahead not merely with but ahead of the general progress of the nation. I might have said "virile" railroads.

These railroads must be manned by alert and respected workmen—people

who are proud of being railroaders, who know that theirs is a public service fundamental to national well-being, essential, reward-worthy, truly a life worth living. These alert workmen must be so interested in the progress of the industry that they will speak up for it at every opportunity and share with management and public alike the thoughts and ideas and observations they develop with respect to better railroading. They must be a team—a thorough, co-operative, hard-hitting team.

This team of alert and respected workmen must be guided, inspired and directed by progressive management. This must be management which has come up from the ranks, which has experienced the rebuffs, the toughening, the hard knocks which only railroading out among the box-cars can provide. This must be management with vision, courage and enterprise—willing to gamble, if need be, with everything except the safety of its men, its customers and its customers' goods. It must be management with the willingness to assume and bear responsibility, yet with the willingness to delegate responsibility to capable subordinates and to arm those subordinates with an equivalent amount of authority to carry out their tasks. It must be management with the gift for building a team and for giving it strength, spirit and genuine leadership. It must be management which has the nerve to say not merely "Go" but "Follow."

These railroads must be modernized to fit the needs of post-war America; they must be allowed to operate under sound policies of government, and they must command the confidence of the American people. These things they must—and will—certainly bring about primarily by a policy of deeds, rather than words, but best of all by a policy of deeds *supported and explained and advertised* by words as well.

## Does the Public Know This?

They will start out with their own and the public's recollection that railroads deserve well of the nation—that in the war just past American railroads handled more than 97 per cent of the Army's organized troop movements and hauled approximately 90 per cent of all its freight. For a record of achievement they will have at hand figures revealing the number of men and the tremendous volume of supplies moved through the various ports of embarkation, as well as the overwhelmingly important part played by the railroads in



their movement throughout the war. They will remember that from Pearl Harbor through August, 1945, Army troop movements by rail aggregated 32,655,793 men, as compared with less than a million men by other commercial carriers. With all domestic carriers performing approximately 209 billion ton-miles of freight service for the Army during the course of the war, the railroads hauled 293,758,000 tons of supplies up and down and across the country, while motor carriers transported only approximately 26,000,000 tons and inland waterways only slightly more than 4,000,000 tons in the closing three full years.

With that as a background, they will continue and expand every program of deeds directed toward creating a public preference for railroading, first of all, and for each particular railroad only secondarily. They will be deeds directed toward winning friends and influencing people by concrete performance of every sort that will be favorably recalled. Beyond that point railway plans will be directed toward creating in the public mind and in the thinking of our railway people themselves a distinct pattern of thought that will result in friendship with each other and with the public and in creative accomplishment of a sort that will impress and will be readily remembered.

As a general policy, I am sure the way ahead of us provides a tremendous challenge of this sort in the field of human relations. It calls for a permanent, sound, healthy, creative partnership of men and management, a partnership that will endure under many trials. Very largely through that we must continue on to higher ground in the never-ending evolution of the art of transportation. And we must never for a moment overlook the eternal struggle to sustain the sources of traffic which furnish the lifeblood of the railroads and which sustain men and management alike.

### Education for Employees

As specific measures along these lines, railroads will not only need to set up training schools for beginners but also enlarge training programs within the railway organizations themselves, especially for those in supervisory positions. They will need to experiment with such developers of ideas as employee suggestion systems. They will need to work their way to new highs in both employee and customer safety, reaching a standard in these respects far beyond anything enjoyed for many years. They will have to promote further safety at highway-rail intersections, to offset the rising tide of highway casualties resulting from the increased post-war operation of automobiles.

On the side of practical mechanics, they will need to continue motive power reconversion and expansion programs—one of the major reasons for railway ability to serve so well throughout the war. They will need to experiment with both new power and new trains. There will be corresponding developments in all adjuncts of service, diners for the

passengers, faster terminals for the freight and so on. There will be lighter, stronger and faster equipment of all kinds. There will be further experiments with radio communication to and from trains en route, engines and cabooses as well as passenger cars. Radar will get a try-out. Railway representatives will travel in foreign lands making personal on-the-spot investigations of foreign traffic and trade possibilities for the benefit of all business men in every state and trade territory. Development programs will be expanded in agriculture and industry alike.

These are a few of the many railway projects under way, and there will be more, all designed to bring about a more friendly feeling than ever between the railroads in general and the public whom all these railroads serve. Yet these deeds, some already accomplished and some in the stage of promise, are only part—and a small part—of the foundation upon which railroads will have to build for the future. They will have to add to their deeds a certain amount of reporting and continued constructive thinking, or else there will be a tendency to forget what they have accomplished and what they are going to do. Consequently, progressive thinking and speaking are very much in order not only on the railroads but also among their customers, both present and prospective.

### More Advertising Needed

There will need to be a great expansion of the institutional and public relations advertising in which the railroads have engaged with such notable success, as well as a resumption of their customary passenger and freight advertising, the latter a casualty of the war. There will have to be public speaking by railway men—more now than ever before. We shall have to draw heavily upon both the newspapers and the radio to carry our messages, and we shall have to go into television when it gets into general use.

Railway public relations efforts to date have won, we think, and will hold in the future, again we think, the good will of millions of persons not only because the approach has been sincere, constructive and well-intended but also because it has been backed throughout the years by deeds of which the entire railroad world has been proud, by a performance which has truly served the needs of all the people for whom the railroads were built and continue to exist.

Supplementing such an advance in public and private friendship and acceptance, the railroads will do well, I think, to engage in further development of the mental capacities and good will of their own employees not only by instructing them thoroughly in the policies and operations of the companies but also by inviting their suggestions for the betterment of all operations and paying them well for every suggestion which is likely to prove helpful. Here is a vast reservoir of co-operative effort which the railroads will do well to take the

leadership in tapping. This must be done, I rather think, in co-operation with the representatives of the employees themselves, the latter the leaders in their labor organizations, all of whom could very well hold honored places upon the committees which select the winning ideas and indorse the payment of company funds therefor.

### Too Much Transportation

The road ahead is one which calls for open-minded, constructive thinking by us all. I am completely sincere when I give you as my best opinion the thought that our successful future in railroading depends almost altogether upon the path which our thinking follows within the next few years, perhaps within the next few months. We cannot always buy our way out or bull our way through or push ahead by main force and mass production of ton-miles and passenger-miles. We must guide ourselves carefully in the future through a series of pitfalls and alert and determined competitive practices, all of them designed to take away from the railroads that one thing which has primarily been the salvation of railroading in grievous crises in generations past—and that is the ability to have plenty of traffic at railway disposal and to haul that traffic cheaply, efficiently, with the minimum of manpower involved.

Something tells me that the nation's ability to produce methods of transportation is likely to continue for a good many years well beyond the ability of the nation at the same time to produce traffic that will keep all of them in profitable operation. During the war we have had a condition in which the public has actually had to use the railroads—or else. That condition is not continuing and will not continue. We cannot depend upon adverse circumstances such as rubber shortages, enemy submarines and fog and storm to keep our competitors limited in their operations.

All these hindrances have been or will soon be wiped out. Railroads will have to stand strictly upon their own merits as public carriers. Railroads must become carriers desired and wanted and appreciated by a public which has a choice among a great many types of carriers and which has the money to patronize all or any of them as it may choose.

### Creating a Public Preference

Moreover, the money angle—the advantage of economy—will not always remain a prime attraction of the railroad. Everywhere I turn nowadays I see signs that even the airplanes, seemingly expensive as they would be if all their costs were taken into consideration, are getting down to rates and fares that can seriously compete with and in some cases under-cut railway transportation.

Consequently, we must look upon the road ahead for the railroads as a pathway that will be successfully followed only by those who create and deserve a



public preference for railroading. That preference will come about, and will be deserved, only if the railroads enlist *all* their capabilities in the campaign. We shall have to do constructive thinking and planning and spending that will insure a constant improvement in the public service which the railroads render.

### Too Many Preconceptions

That program will call for major qualities of mind and heart and determination on the part of every man and woman connected in any way with railroading. We must avoid above all else the tendency to rely upon fixed patterns of thought. We must not allow our thinking or our emotions to get into a rut and stay there. In saying this, I am reminded of the great many of our public characters, both in office and out, who can always be depended upon to react to any expressed proposition strictly upon the basis of their previously announced likes and dislikes. Such persons leave themselves wide open. They can be guided into the wrong channels almost invariably by any opponent who will take good care to select the right and honest and proper position for him-

self before bringing up any question that might possibly arouse a dispute.

Unfortunately, on the railroads in the past we have had far too much automatic thinking. Too many of our people have been inclined to respond to any suggestion strictly upon the basis of preconceived opinions. If a thing has always been done one way, some of us have felt, I am afraid, that that's the way it ought always to continue to be done. New public policies regarding rates and regulation, for example, have invariably brought about a concerted response from within the railroad industry itself to the general effect that, because this thing or that has never been done that particular way before, it must not now be done—or even tried experimentally—upon the suggested basis.

Railroading in the future cannot be successful if based upon such case-hardened habits of thinking. We must have open minds, alert minds, inquiring minds, humble minds, minds that are ready to admit mistakes, to accept new ideas, to experiment, to go forward, never backward, even if going forward involves risk and uncertainty and inability to see clearly the path that lies immediately ahead.

laziness was responsible for several bad rear-end collisions within the last year or so and I could see no other explanation one day when, on a single track line, where war freights and troop trains were rolling a few minutes apart, a passenger came up from the last car laughing at a wonderful joke on our flagman. The flagman had got down at the last stop and had been left when we pulled out.

We couldn't back up to get him, so the brakeman or conductor had to take over and there was much argument as to whether the engineer did or didn't get a signal that he was back aboard. Anyway, he wasn't, and somebody had missed a trick.

### Immature Managers

Railroad men that I know are just hell on caution and that slogan, "Safety First," was dinned into the very souls of the regular crews, the best of whom are not young. The overland buses lack the same sense, as many of us have noticed in close scrapes with the juggernauts in tight places, and in aviation the passenger service is still to a large extent in the hands of speculative promoters preoccupied with politics, personal publicity and night club life and without the tradition or responsibility for human life that is always in the mind of the railroad executive. Aviation hasn't the maturity of the railroads in the responsible brackets and both industries know it.

A year or so ago I was talking, or listening, to Henry Kaiser and trying to keep him on the subject of a low-lived hoodlum who was running the workers in a war plant that Henry had been asked to straighten out. Henry flaps around, and the first thing I knew he had a fellow bring in a lot of pictures of the choo-choo car of the future, painted in beautiful colors, which looked more like jobs for the milliners than the steel workers. They certainly were pretty and a passenger in that brave world of the future might feel that he was a Vanderbilt or a Soviet commissar for a day, amid servants, heavy linen and crystal service. But I remembered what an old, practical railroad man had told me about a small batch of candy cars that had been whipped up as an experimental order which certainly were great for style and beauty but sagged at the ends so the couplings didn't meet.

### A List of Essentials

Me, I don't care whether the outside is shiny, like a new dime, and gaily striped like a song-writer's shirt, or there are movies or a gameroom in which to listen to radio comedians from Hollywood playing gin and discussing their fabulous earnings, if it stays on the track and doesn't run into the train ahead or get hit by the one behind. If, then, for extra, they can keep the air-conditioning in shape and shake together a fair supper and the lights work, that will be just fine.

## Westbrook Pegler's Advice on Railroad Passenger Service

(Copyright, 1945, by King Features Syndicate)

**T**HE Santa Fe is asking the passengers for suggestions as to how the railroads should be run and I observe that the New York Central is doing the same. It appears that the railroads, generally, apprehend that the public will remember the discomforts of travel during the war and hold a grudge and, possibly, take to the buses or planes, although, at the worst, the civilians in the Pullmans had only to look out the windows at the troop trains or recall, if they had any experience in European travel, the margin of our worst over Europe's best in normal times to realize how well off we were.

### Courtesy Can Be Overdone

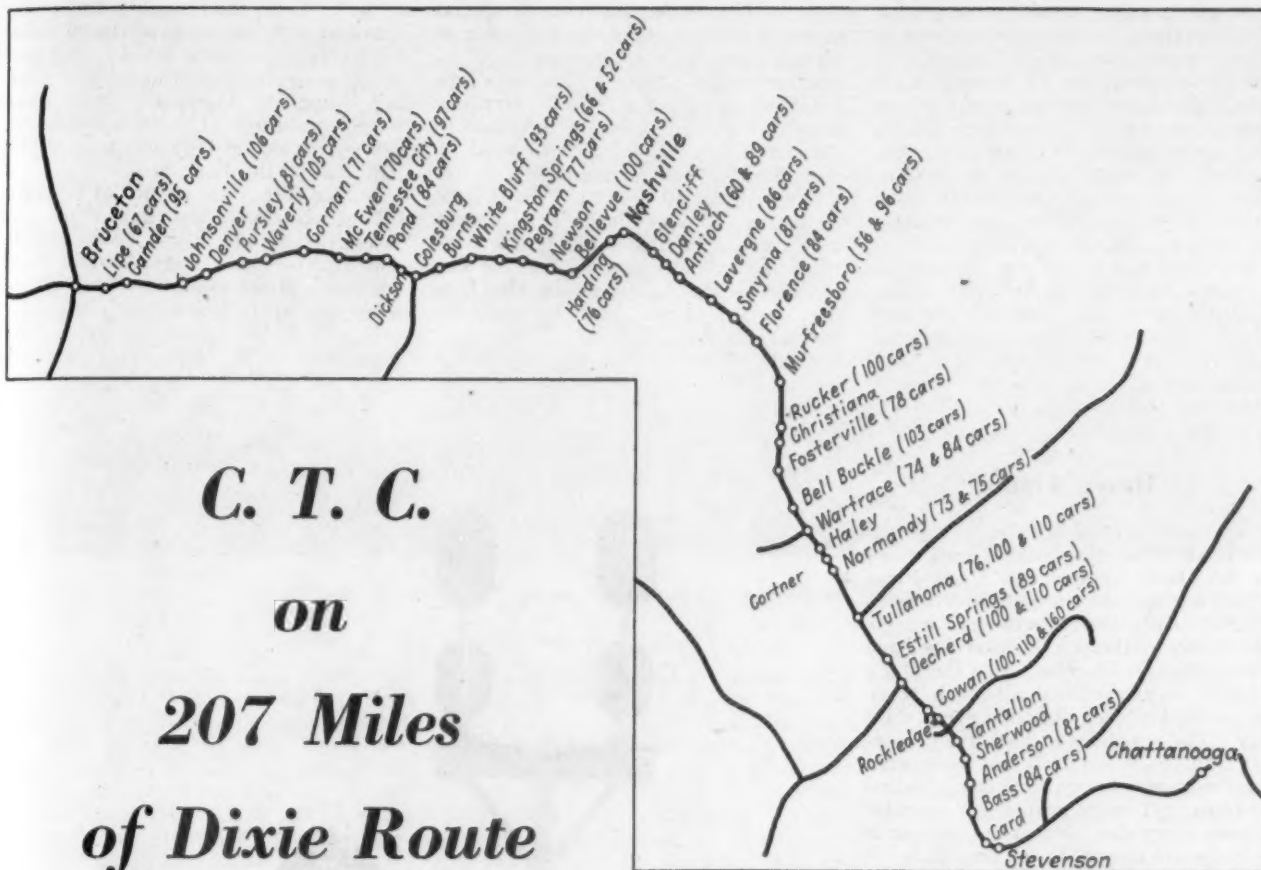
I think the new salesmanship of the railroads, in the Passenger Department, goes in for a little too much hand-holding and baby-kissing and is attempting the impossible. After all, the first and final purpose of the railroad is to take the passenger safely from here to there and it never will be able to provide the luxury of mansion life in the cramped quarters of a train. Not many of us are accustomed to luxury at home, anyway, and if the railroads give us just comfort, safety and privacy for those who like it, we should be willing to settle for that. There are gregarious souls, however, who like to strike up conversations and

discover that it is a small world after all, so it will not do to abolish the open car. Such passengers get claustrophobia in the cells, however soft the beds and chairs and pretty the tones of the upholstery.

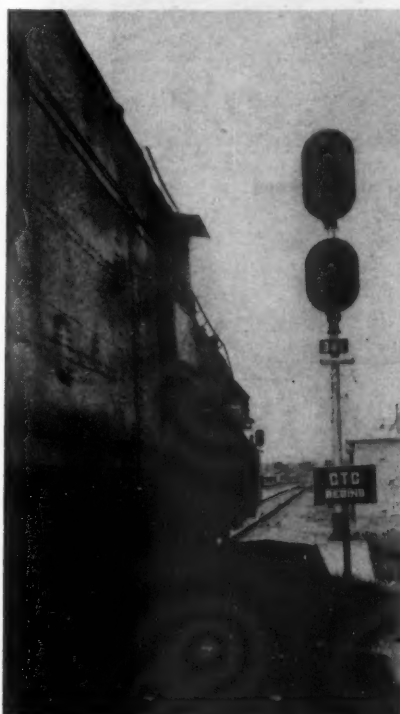
One error of our railroad people up to the time of Pearl Harbor was that in some hauls they were trying to compete with the planes in speed. They went too fast, and whatever statisticians may say in decimal points about the casualty rate per million passenger-miles, when an engineer slews the dishes off the tables and rolls the guests in their bunks on the curves he is going too fast. They were doing that every day and night and the experience is not only uncomfortable but, in flood season, when the ground is spongy and the road-bed is working, it is alarming as well.

I hope they will be able to assure us soon that their regular, professional operating crews are back and that the old sense of responsibility, the caution and alertness that had come to be characteristic, will be revived. You just can't run railroads safely with casuals in the crews and it takes years of training and experience to teach a man that an act of monkey-business that might be harmless in a factory or an office may cause a terrible smash somewhere out in the wilds.

I suspected that dumb carelessness or



One project on 111 miles of single track saves 1 hr.  
45 min. for each of the through freight trains



**T**HE Nashville, Chattanooga & St. Louis has installed centralized traffic control on 92 miles of the Nashville division between Bruceton, Tenn., and Nashville, as well as on 111 miles of the Chattanooga division between Nashville and Stevenson, Ala. Except for 4 miles through the Nashville terminal, the C. T. C. is continuous for 207 miles between Bruceton and Stevenson.

Between Nashville and Cowan, 85 miles, the railroad traverses rolling hilly country and in general the grades range up to about 1 per cent. Most of these grades are short but some range from 1 mile up to about 2 miles long. Starting at Normandy, an ascending grade southward ranges from about 0.7 to 1.26 per cent for about 5.5 miles. This grade includes five 4-deg. curves and five ranging from 5 deg. to 5 deg. 29 min. Extending south from a point 1 mile north of Tullahoma, the line is tangent for about 11 miles.

The L type locomotives with boosters are rated at 2,000 tons southbound be-

tween Nashville and Tullahoma, 68 miles, and at 3,000 tons southbound between Tullahoma and Cowan. For fast through service the train load is about 1,850 tons. Northbound these locomotives are rated at 2,450 tons, Cowan to Nashville, but, for fast through service, at 1,750 tons.

#### Cumberland Mountain Grades

Starting at Cowan, the grade ascends southward at rates varying between 0.91 and 2.42 per cent for about 2 miles to a crest in the center of the tunnel through the Cumberland mountains, this tunnel being 2,228 ft. long. In the last mile before entering the tunnel there are five curves ranging from 4 deg. to 6 deg. 10 min. Starting at Tantallon, the foot of the mountain on the south side, the grade ascends northward at rates varying between 1.8 and 2.5 per cent for about 4.5 miles to the crest in the tunnel. This mountain is practically all on curves, nearly all of which range from 5 to 6 per cent. A helper locomotive is used on each southbound train between Cowan and Rockledge, as well as on each northbound train between Sherwood and Rockledge. On passenger trains, the helper is coupled ahead of the road locomotive. On freight trains, the helper is coupled at the rear to push.

The trains are naturally limited to

Train Passing Switch  
at C.T.C. Signal 34L

slow speeds when ascending the grades, and, for safety, are limited by rule to 30 m.p.h. when descending. Because of these slow speeds and on account of the extra light engine moves, as well as the time lost to cut in and cut out helpers, the section between Cowan and Sherwood is the most difficult to operate. Thus the capacity of the division is determined by the success in keeping trains moving over this mountain.

Between Sherwood and Stevenson, 15 miles, the railroad is single track, along the banks of a creek at water level which is less than 0.1 per cent descending southward. Stevenson is the south end of the C. T. C. project. Between Stevenson and Chattanooga the railroad is double track.

### Heavy Traffic

The Chattanooga division is a part of the Dixie Route that handles such trains as the Dixie Limited and Dixie Flyer which are operated in both directions as through daily trains between Chicago, Nashville, Atlanta, Jacksonville and other cities in Florida. Also the Dixie Flagler, a streamlined all-coach train, is operated in each direction every third day. The schedules include five passenger trains each way daily and the streamliner each way every third day. Second sections and extra trains are operated almost every day, so that an average of 6 trains are operated each way daily. A local freight is operated in each direction daily except Sunday. On the average there are from 15 to 20 through freight trains in each direction daily. Thus the total number of trains ranges from about 44 to 54 daily with a maximum of about 60. In addition there are numerous moves made by light engines in helper service over the mountain.

### Two C. T. C. Machines at Cowan

In view of the fact that all trains stop at Cowan, either to cut in or to cut out helper locomotives, and for coal and water, this was a logical place at which to divide the territories to be controlled from separate C. T. C. machines. The operation of trains and helper locomotives

over the mountain requires special attention on the part of the dispatcher at certain times. Therefore, one C. T. C. machine with a panel 5 ft. long was provided to control the 26-mile territory from Cowan south over the mountain to the end of double track at Sherwood. A second 15-ft. C. T. C. machine with five sections arranged in a "U" shape is to control the 85 miles north from Cowan to Nashville. A dispatcher is in charge of each of these machines, and the dispatcher on the 5-ft. machine also handles certain branch lines by timetable and train orders.

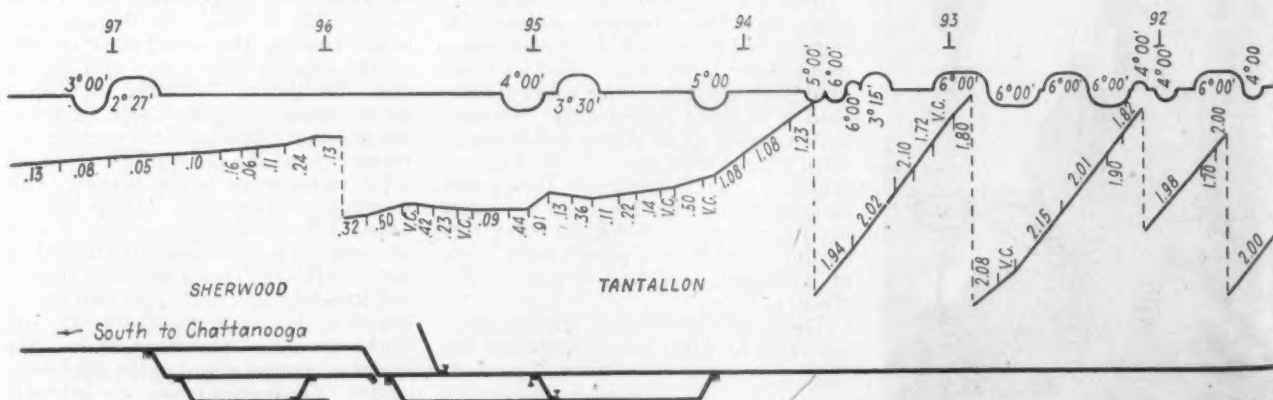
While preparing for the installation

of the C. T. C., three single sidings were removed and one was shortened to be used only as a house track. One new siding was added at Rucker, and existing sidings at Tullahoma and Cowan were lengthened. The capacities of the sidings, based on cars 45 ft. long, are indicated on the diagram.

Single sidings are located at 10 towns between Nashville and Stevenson. Lap siding layouts are in service at Antioch and Murfreesboro. At Wartrace there are two separate sidings not arranged as a lap, and at Tullahoma there are three sidings. At Decherd there are two sidings on the west side of the main track.

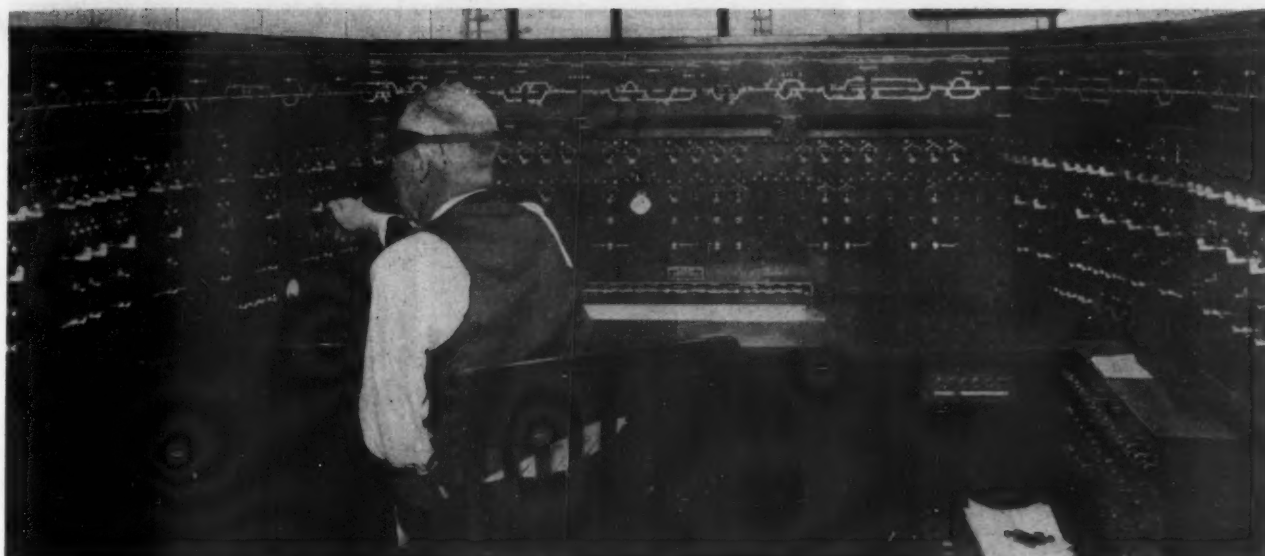


Southbound Train at Sherwood



Profile and Track Layout of Section Including Heavy





The C. T. C. Control Machine in the Dispatcher's Office at Bruceton, Tenn.

This installation of C. T. C. between Nashville and Stevenson was completed and placed in service in October, 1944. A check of running times before and after this date revealed an average reduction of 1 hr. 45 min. for each through freight train under C. T. C. operation by signal indication, and an average saving of 2 hr. 30 min. for local freights.

### On the Nashville Division

From Nashville the main line extends westward 94.5 miles to Bruceton, from which point there are three lines. One extends north 86.3 miles to Paducah, Ky., a second extends 76.6 miles northwest to Hickman, Ky., and a third 143.3 miles west to Memphis, Tenn.

Three through passenger trains are operated in each direction daily between Nashville and Memphis. These trains make connections with other passenger trains operated between Bruceton and Hickman, as well as between Bruceton and Paducah. Freight trains arrive at and depart from the yard at Bruceton. A local freight train is operated each

way daily except Sunday. From 10 to 12 through freight trains are operated each direction daily. Thus the total number of train movements ranges from 25 to 30 daily with a peak of 45.

Between Nashville and Bruceton the railroad crosses rough hilly country practically all the way. A grade varying between 1.0 and 1.59 per cent, ascending northward, extends for about five miles between Kingston Springs and White Bluff. A grade varying between 0.9 and 1.52 per cent ascending southward extends for about 4 miles between Gorman and McEwen. Just north of Tennessee City there is an ascending grade southward ranging from 1.8 to 1.35 per cent for about 3 miles. This is the ruling grade southbound. The tonnage rating of the L-2 type locomotives is 1,500 tons northbound between Nashville and Bruceton, and 1,675 tons southbound from Bruceton to Nashville.

### Nashville Division Sidings

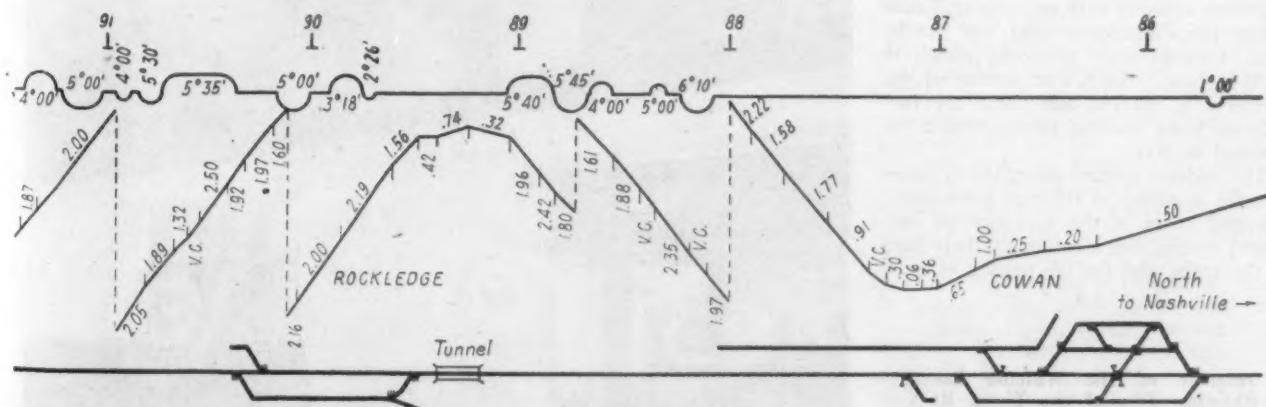
At the Nashville end, the C. T. C. starts at the north end of the home sig-

nal limits of the Shops interlocking. At Kingston Springs, which is at the foot of the ruling grade northbound, are two sidings, one on each side of the main track, and there is a similar arrangement at Colesburg. As a part of the C. T. C. project, power switch machines and semi-automatic signals controlled by the dispatcher were installed at these siding switches at Kingston Springs and Colesburg, as well as at 13 single sidings. The locations of these sidings and the car capacities are indicated on the plan.

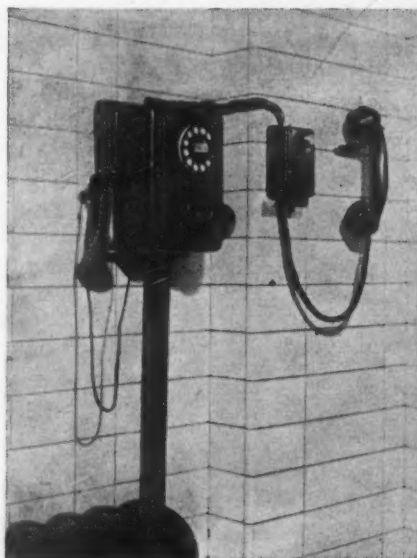
### The Old Sidings

On the Nashville division more sidings were previously in service than would be needed with C. T. C. The old sidings at Eva, Vaughan's Gap, Newsom and Burns were removed. At Dickson the old siding was left as a house track. The hand-throw switch stands were left in service and electric locks were applied, but no signals were installed for directing train movements.

No automatic block signaling was in  
(Continued on page 651)



Grades, Curves and Tunnel Between Cowan and Sherwood



At Left—The Waiting Room Announcer's Position Showing the PAX Telephone, Key Switch and Pilot Light and Handset—Center, The 50-Watt Amplifier Is Wall-Mounted in an Office—Right, The 6-Watt Amplifier for the Waiting Room Speakers

## Address Systems for Small Stations

**Illinois Central application coordinates needs of waiting room and long platform for handling through-train passengers**

**A** PUBLIC address system recently installed by the Illinois Central at its 63rd Street station in Chicago is a good example of the best principles of application of such systems. It employs the maximum number of small speakers warranted by operating results and economics. Instructions to passengers are made distinctly audible to them without the use of sound concentrations which would be objectionable in the residential district in which the station is located.

The station building includes a ticket office and waiting room from which passageways connect with two elevated suburban train platforms and one track-level, through-train platform which is 1570 ft. long. An 872-ft. section of the platform is covered and there are two fully-enclosed waiting rooms within the covered section.

The address system is needed to expedite the handling of through passengers, advising them of the approach of outbound trains, the location of their cars in the train, and for the paging of indi-

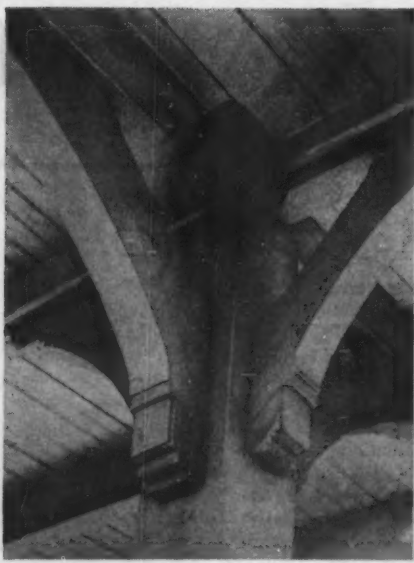
viduals or groups. It becomes particularly important when a train is run in two or more sections. Announcements are first made in the waiting room and passengers are moved through the gates and passageway to the platform which is zoned, the various zones being designated by prominently displayed letters.

There are three speakers in the wait-

ing room, 18 bi-directional speakers on the covered platform and in the shelters and two horn-type speakers faced in opposite directions, on the open platform. Two handsets are used for making announcements, one in the waiting room near the gates and one in one of the shelters on the platform. Handsets rather than separate microphones are used be-



Interior of the Waiting Room Showing Two of the Three RCA Speakers, One on the Grill at the Left and One at the Extreme Right



At Left—The Station Master Makes an Announcement from the Platform Shelter—Center, One of the Webster Bi-Directional Speakers—Right, Open End of the Through-Train Platform Showing the Two RCA Units

cause the receiver, which is not connected in the circuit, aids in properly positioning the mouthpiece when announcements are being made.

The waiting room position has a double-throw switch and pilot light. The switch is of the non-locking key type which must be held closed in either position by hand. One position connects the microphone to the speakers in the waiting room and the other to the platform speakers.

The microphone in the platform shelter operates only the platform speakers and when in operation it disconnects the waiting room microphone circuit. When the waiting room or gate operator throws his switch to the platform speakers, the pilot light shows if the circuit is ready for his use. Normally all announcements to passengers on the platform are made by the operator in the platform shelter. A PAX telephone provides for private conversation between the waiting room and shelter operators.

#### Amplifier for Platform Speaker

A 50-watt amplifier located in office space near one end of the platform supplies the platform speakers. A 6-watt amplifier placed in a convenient cable vault supplies waiting room speakers.

The three RCA speakers in the waiting room are set for about one watt output each. Eighteen of the speakers on the platform are bi-directional model 8 CP-1 Webster speakers and the two on the open platform are RCA MI-6309 units. Each of the twenty is set for about  $1\frac{1}{2}$  watts output.

Carbon microphones are used and the necessary microphone power is obtained from dry batteries. Amplifier power is taken from the 110-volt a.c. circuits. Plate voltage is applied to the larger amplifier only when it is in service. This

is accomplished by a control relay which closes when the announcer's switch is thrown to the operating position. Only one pair of wires is used between the two amplifier locations. The pair is used directly as a speech channel and for the operation of controls by means of a simplex circuit and suitable relays.

The installation was designed by and installed under the direction of P. B. Burley, electronics engineer, Illinois Central, Chicago.

#### C. T. C. on 207 Miles

(Continued from page 649)

service on this division previously; therefore, the C. T. C. system, including signals, line circuits and track circuits, is all new. In general, the circuits and signaling are similar to those on the Chattanooga division, as previously discussed. One difference is that fewer intermediate signals were used, the locations being spaced about 10,000 ft., plus or minus, as required to divide the distance between sidings. Where the distance between sidings ranges about 7 miles or more, as between Bellevue and Pegram, three double locations of intermediates were installed. Where the distance is from 5 to 6 miles, as for example 5.5 miles between Kingston Springs and White Bluff, there are two intermediate double locations. Where the distance is 3.5 to 4 miles, as for example Colesburg and Pond, only one double location is used.

#### The C. T. C. Control Machine

The entire C. T. C. territory between Bruceton and Nashville, 92 miles, is controlled from one C. T. C. machine in the dispatcher's office at Bruceton. The

dispatcher in charge of this machine also handles other territory between Bruceton and Hickman by timetable and train orders. About 10 miles of line between Denver and Camden is being relocated because of the construction of a dam on the Tennessee river. The C. T. C. is not in service on this 10 miles; therefore, the maximum savings in train time cannot be made. Previously when operating the Bruceton-Nashville territory with timetables and train orders, the average overall time of freight trains between these terminals was about 3 hr. 30 min. northbound, and 3 hr. 45 min. southbound. With the C. T. C. the average time is about 2 hr. 45 min., either direction. Further time savings will be made when the section between Johnsonville and Camden is placed in service.

The dispatchers for the Paducah and Memphis divisions are also located in Bruceton. The two sets of dispatchers and the chief dispatchers formerly worked in a one-story frame building which was in need of replacement. Because of the fire hazard to the C. T. C. machine in the old frame building, a new two-story brick building was constructed. The dispatcher's office, including the C. T. C. machine, is on the second floor. On the ground floor is a large room for the cases, including the relays, carrier apparatus, etc., and space is available for the C. T. C. test bench, as well as a desk for the maintainer. The batteries are in a separate room, and the heating furnace in another. There is a toilet on each floor. To minimize the noise in the dispatcher's office, the walls and ceiling are covered with sound-proof material.

These installations of centralized traffic control were planned and installed by railroad forces under the direction of E. W. Anderson, signal and telegraph engineer, the major items of signaling equipment being furnished by the Union Switch & Signal Company.



# GENERAL NEWS

## Cor-Ten Cars After Ten Years' Service

Car Construction Committee inspects several types on exhibit at Pittsburgh

In celebration of the tenth anniversary of the first substantial application of USS Cor-Ten steel, the Carnegie-Illinois Steel Company exhibited on October 10 at the Homestead steel works, Pittsburgh, Pa., a group of 14 lightweight freight cars of several types which have been in service during a major part of the period since the development began. Twelve of the cars were originally built of Cor-Ten steel and two were test cars in which the service of Cor-Ten steel was compared with that of Man-Ten steel and hard aluminum alloy. During the afternoon these cars were inspected by members of the Car Construction Committee of the American Railway Association, Mechanical Division, and of the American Railway Car Institute Committee on Freight-Car Design then meeting at Pittsburgh. The party were guests of the steel company for luncheon and dinner.

The largest group of cars comprised seven Bessemer & Lake Erie 50-ton lightweight hoppers. These were from the lot of 100 USS Cor-Ten cars weighing a few hundred pounds over 30,000 each which were built in 1935 and have since been in continuous heavy service on the home road. In the design of these cars very thin sheets were employed. The side sheets and top floor sheets were  $\frac{3}{16}$  in. thick; the bottom floor sheets  $\frac{1}{8}$  in. thick, and the hopper sheets  $\frac{3}{16}$  in. thick. The interiors of these cars presented the characteristic, uniformly pitted appearance of Cor-Ten steel with no accumulations of heavy spalling scale characteristic of carbon steels. With one exception, there was no visual evidence that any of the sheets in these cars had been weakened by corrosion, although there were signs of more than average corrosive conditions at the horizontal riveted joint between the side sheets and hopper sheets. In one hopper car there were short breaks in a side sheet near the lower end of the joint between the side sheet and the hopper slope sheet. The thickness of the sheet at the fracture and other evidences of mechanical damage of the floor sheets suggest that the breaks in this sheet were due to causes other than corrosion.

The general condition of the sides and top chord members of these cars indicates that they have stood up well under service requiring frequent passage through car dumpers.

Another hopper car of the same design was one of five built in 1935 for the Pittsburgh & Lake Erie. The side sheets of this

car had already failed through corrosion at the junction of the side sheets with the hopper sheets and narrow patches had been applied.

Two test cars for direct comparison of the service of Cor-Ten steel with other materials were also in the exhibit. In one of these cars the comparison is with a hard aluminum alloy and in the other with USS Man-Ten steel. These are from a group of thirteen 50-ton hopper cars owned by the Carnegie-Illinois Steel Corporation which were rebuilt as test cars for comparing USS Man-Ten, copper-bearing steel and aluminum alloy with the USS Cor-Ten. The comparisons were between  $\frac{3}{16}$ -in. and  $\frac{1}{4}$ -in. Cor-Ten,  $\frac{3}{16}$ -in. and  $\frac{1}{4}$ -in. Man-Ten,  $\frac{1}{4}$ -in. copper-bearing steel and  $\frac{1}{4}$ -in. aluminum. The test has now been completed after an average service to penetration as follows:  $\frac{3}{16}$ -in. Cor-Ten, 51 mos.;  $\frac{1}{4}$ -in. Cor-Ten, 66 mos.;  $\frac{3}{16}$ -in. Man-Ten, 24 mos.;  $\frac{1}{4}$ -in. Man-Ten, 36 mos.;  $\frac{1}{4}$ -in. copper steel, 35 mos.;  $\frac{1}{4}$ -in. aluminum, 52S  $\frac{1}{4}$  hard, 30 mos.

The Bessemer & Lake Erie now has in service over 6,000 lightweight hopper cars of USS Cor-Ten construction with nominal capacities of 70 and 90 tons. These cars were first built in 1936. The bodies of both capacities are the same. The weight of the 90-ton car is 48,500 lb. The side and top floor sheets are  $\frac{3}{16}$ -in. material; the bottom floor sheets of  $\frac{5}{16}$ -in. material, and the hopper sheets  $\frac{3}{16}$  in. The two cars exhibited are in good condition.

The remaining two cars of the exhibit were 50-ton box cars, one built in 1938 for the Bessemer & Lake Erie by the Pullman-Standard Car Manufacturing Company of light-gauge welded sheets, weighing 38,300 lb.; the other, weighing 43,200 lb., was built by the American Car & Foundry Co. in 1941. The body structures of both of these cars are in generally good condition.

## September Ton-Miles

The volume of freight traffic, handled by Class I roads in September amounted to 50,400,000,000 ton-miles, according to a preliminary estimate by the Association of American Railroads. The decrease under September, 1944, was 17.5 per cent.

Revenue ton-miles of service performed by Class I roads in the first nine months of 1945 was 4.5 per cent under 1944, and 1.5 per cent less than the corresponding period two years ago.

The accompanying table summarizes revenue ton-miles for the first nine months of 1945 and 1944:

	1945	1944	Per cent decrease
First 7 months	425,644,875,000	431,106,870,000	1.3
August	56,400,000,000	64,459,523,000	12.5
Sept.	50,400,000,000	61,181,730,000	17.6
Total 9 months	532,444,875,000	556,747,123,000	4.4

\* Revised estimate.  
\* Preliminary estimate.

## Freight Car Situation Remains Quite Tight

Kendall's October report indicates that no surplus is now in sight

Freight car conditions remain generally tight with nothing which could be called a surplus in hand or in sight for the next few months, according to the October issue of the report on the "National Transportation Situation," issued by Warren C. Kendall, chairman of the Car Service Division, Association of American Railroads. The foregoing does not apply to the tank car situation where conditions have so eased that Mr. Kendall omitted reference to it from the report.

**Shy on High-Grade Cars**—Box cars, especially the better grade, are in great demand in all sections, and particularly on the principal grain loading roads for the movement of this year's record crops. There have been "some deficiencies" for better grade box cars in the Northwest, Central West and Southwest districts, Mr. Kendall said, noting at the same time that carloadings of grain and grain products for the 39 weeks ended September 29 totaled 2,035,149 compared with 1,890,390 in 1944 and 1,954,329 in 1943.

While he called this job of handling the crops his "greatest single box car distribution problem," the C. S. D. chairman pointed out that requirements of box cars for a number of other commodities "continue in considerable volume." He mentioned specifically the export program calling for shipment of 180 million bushels of grain to Europe at the rate of 30 million bushels a month; and the program for returning materials and supplies from the war theaters.

**No Let-Up in Box Car Needs**—"Notwithstanding the substantial decrease in total carloadings for the country as a whole since V-J Day, there has been relatively little decrease in the requirements for box cars," Mr. Kendall went on. "The continued cooperation of everyone in the prompt loading, unloading and expeditious handling of box cars will be of material assistance in meeting the obligations for this type of car."

Meanwhile, the demand for automobile box cars has been light and the supply adequate only because of the unsettled labor situation existing in the automobile industry. Several roads are taking advantage of the lull to progress their programs for re-conditioning and re-equipping their auto box cars.

(Continued on page 656)

## Too Much Transport May Bring Rate Rise

Plowman warns: low r. r. rates stem from volume, menaced by tax-aided rivals

With E. G. Plowman, vice-president in charge of traffic of the United States Steel Corporation, as guest of honor and principal speaker, the Mid-West Shippers Advisory Board met at the Palmer House in Chicago on October 11.

Mr. Plowman spoke on "Post-war Problems," and prefaced his summary of coming difficulties with an interesting history of pre-war and war-time conditions as a contrast to what the railroads, and other methods of transportation, face in future years. He cited vastly improved transportation facilities of World War II as compared to the "chaotic" conditions of the previous world conflict. This betterment, the speaker said, stems from the fact that competing forms of transportation and competing carriers in the same field during the years separating the two great wars, "worked out and applied some voluntary measures of co-operation," and that the railroads perfected a number of technological improvements in equipment and operation. Referring to the future, Mr. Plowman said in part:

"During the months immediately ahead of us, there will be a gradual relinquishment of war-time government control of American transportation. The thousands of individual transportation companies and the hundreds of thousands of shippers, in the near future, will find themselves in normal peace-time relation with each other.

"Certificates" for Highways? "Traffic men may well view with concern proposals to expand the transportation facilities of the United States. There is ground for fear that part of this post-war expansion may have to be paid for, not from operating economies but by increased rates and charges. Undiscriminating expansion of transportation facilities by government should be ended. One suggestion is that public agencies should obtain certificates of convenience and necessity before spending millions upon new highways, waterways or airways. This suggestion may become more important as such undertakings become more and more duplicative and competitive with existing transportation facilities. The merits of this proposal should be studied by traffic men and traffic associations.

"Now that the war is over, it is essential to the progress of the United States that railroads re-equip themselves. New Passenger cars of better design and improved utility are needed. Thousands of freight cars are old, worn out, obsolete and must be replaced. Improved types of freight cars should be designed to meet new uses and requirements. Trucks, airplanes, ships, barges, pipe lines, and even long-distance conveyor systems should be redesigned, improved and reconstructed in the post-war era. This type of expansion of transportation facilities is highly desirable and should not be curbed by any governmental restrictions. It amounts to offsetting, by new con-

struction, of the deferred maintenance that has accumulated during the war. Through the replacement of obsolete with modern equipment, shippers may receive the benefit of the great technological advances brought about by the war. Bold investments of private capital, in this way, make a real contribution towards lower costs and better co-ordination of national transportation."

"The need for effective co-operation between shippers and transportation companies in the United States was never greater than now," the speaker concluded. "It will be our own fault if traffic executives fail to maintain efficient national transportation conditions in this post-war period."

**Loadings Forecast**—During the meeting it was disclosed that the freight car loadings forecast for the fourth quarter included substantial increases in seven major commodities as follows in percentages:

Grain, 10.0; Livestock, 11.5; Salt, 15.0; Cement, 15.0; Brick and clay products, 20.0; Fertilizers, 20.0, and furniture, 10.0.

During the morning session W. C. Kendall, chairman of the Car Service division of the Association of American Railroads, delivered a short address on "National Transportation Conditions." The speaker pointed out that American railroads did a 100 per cent better job during World War II than during the previous war and this, despite the fact that there were 6,000 cars less available than in previous years. Mr. Kendall declared that while conditions will improve gradually there will still be a heavy demand for passenger cars during the next few months to meet requirements of the fleet. These demands, he pointed out, will be in the West, principally at San Francisco, Cal., San Diego and San Pedro.

### Narrow Gage "Show" Is Part of Rio Grande Birthday Fete

As part of the celebration of its 75th anniversary, the Denver & Rio Grande Western next week will display a special train loaded with early-day narrow-gage equipment, placed on standard flat cars, which will visit many important points of the line. The 13-car special, which leaves Denver, Colo., on October 22, will carry a group of Rio Grande officers and a large cast of entertainers banded together under the name of the "Gay Nineties Revue."

At each stopping place a show will be given from a "stage car" which is to be included in the train and is constructed upon a flat car. In return, a number of communities at which the train will stop have prepared to stage additional events in keeping with the anniversary celebration. Included in the narrow-gage equipment which will be on display are a locomotive built in 1882 and weighing 59,330 lb., an early-day coach, box car and caboose.

### Samuel O. Dunn to Address New England Railroad Club

"New Theories of Economics and the Railroads" will be discussed by Samuel O. Dunn, editor of *Railway Age*, and chairman of the board of the Simmons-Boardman Publishing Corporation, when the New England Railroad Club meets on November 13, at Hotel Vendome, Boston, Mass.

An informal dinner is scheduled for 6:30 prior to the meeting.

## Sleeping Car Situation Will Remain Stringent

Not expected to ease during next six months of heavy troop movements

The tight sleeping car situation may be expected to continue for another six months if the Army carries out its present plans calling for the return during that period of more than 3,000,000 troops from overseas, including 1,240,000 through Pacific Coast ports where about 90 per cent of the arrivals require sleeper service for their journeys in this country. The latest figures on the demobilization plan were given by Colonel I. Sewell Morris, sixth zone transportation officer of the Army Transportation Corps, in an October 17 broadcast over Station WLS, Chicago, in connection with the annual meeting of the National Association of Shippers Advisory Boards.

**Troop Travel to Rise.**—At the same time Warren C. Kendall, chairman of the Car Service Division, Association of American Railroads, told of the big freight transportation job involved in handling agricultural products in this year of record grain crops. Other railroad officers and shipper spokesmen participating in the program and in another October 17 broadcast over Station WAAF, Chicago, predicted that progress in railroading will go on at an accelerated pace with the railroads continuing to be the principal form of transportation in the United States in the years ahead.

Colonel Morris' prediction that in the months immediately ahead the railroads will have to carry "the heaviest concentrated passenger load of the entire war" was based on the fact that the Army will bring home more than 3,000,000 troops in the next six months, as noted above, while the Navy plans to bring back 2,500,000 of its personnel through Pacific ports from August through next June. At the same time, as Colonel Morris pointed out, the demobilization of hundreds of thousands of service people already in this country will continue, 600,000 replacement troops will be shipped to Europe and Japan for the armies of occupation, and more than 390,000 prisoners of war will be sent back to their homelands.

**Record Grain Movement.**—C. S. D. Chairman Kendall's discussion of the crop-movement job ahead noted that six of the eight principal grain crops are expected to produce heavier yields than at any other time in history. "For example," he said, "this season's wheat crop is estimated at 1,152,000,000 bushels, or 74,000,000 bushels over last year's record crop. This will be nearly 50 per cent larger than the average crop for the past ten years. Already this year the railroads have carried more carloads of grain and grain products than ever before in a similar period. During the first 40 weeks of this year, they hauled more than 2,087,000 carloads of grain and grain products, or about eight per cent more than they did during the corresponding period of record-breaking 1944."

Calling attention to the fact that "the box



car supply is tight at the present time, and will probably remain so during the next few months," Mr. Kendall explained: "This is because the need for these cars will continue heavy—much heavier than in normal times—and the margin between demand and car supply will be narrow. One of the unaccustomed loads that the railroads will be called upon to handle will be the movement of unusually large quantities of grains for export to war-stricken countries."

**Improved Freight Cars.**—Clare J. Goodyear, president of the National Association of Shippers Advisory Boards, declared that in planning for the future, the railroads will improve their freight equipment, as well as their passenger equipment, and will make many changes in other parts of their plant. "Through the years," Mr. Goodyear said, "freight cars have gradually become stronger, lighter in proportion to their carrying capacity, safer and more reliable in operation. In fact, improved freight cars had a lot to do with the outstanding record the railroads made in this war. Freight cars of the future will be so designed and built that they will be able to do a greater amount of transportation work and do it better. They will be made of lighter-weight high-tensile metals, and their mechanical construction will be improved in every way."

Other parts of the railroad plant which will see similar advances, Mr. Goodyear went on, include tracks, signals and communications. Changes for the better will be made in terminals and in office methods, he said, and there will be new shops, with better tools and better layouts.

After thus speaking "with assurance about the physical side of railroading in the years ahead," Mr. Goodyear concluded: "The real uncertainties are more in the economic field. In the months just ahead, there will probably be a considerable decline in the total production and exchange of goods, but we hope this will be followed by an upturn when there has been a complete reconversion to the ways of peace. The railroads are vitally concerned with the conditions under which they will have to compete for their share of the business, because railroads without volume business cannot operate successfully."

**Railroads Indispensable.**—Declaring that "the war proved that this country needs and must have the sort of service which only the railroads can provide," Carl Giessow, vice-president of the shipper organization and director of the Transportation Bureau of the St. Louis Chamber of Commerce, stated that "there is nothing in existence or in sight to take the place of trains on tracks as the major transportation for a continent so vast and so richly productive as ours."

"The railroads," Mr. Giessow continued, "are the only form of transportation that can move all sorts of freight in any kind of weather all over the country for an average charge of as little as one cent a ton per mile."

In discussing what the load on the railroads is going to be in the next few months, Mr. Giessow said: "Military freight has already dropped tremendously, and will continue to fall off. Manufacturing will decline in the next few months as plants are being reconverted. That, of course, will

### Air Paper Says I. C. C. is "Railroad-Dominated"

The publication, "American Aviation," is warning readers in the air transportation industry against "monkey-business," "political pressures and grab-bags" in its dealings with the Civil Aeronautics Board. It mentions newspaper reports of political influence exerted upon the board in the granting of certificates authorizing operations, and deplores ex-Senator Josh Lee as a member of the board, saying that he "lacks an understanding of what comprises a quasi-judicial governmental agency."

Behavior likely to disturb public confidence in the Civil Aeronautics Board—a misgiving "American Aviation" hints may not be devoid of justification—is said to be "one certain way of having the airlines thrown into the railroad dominated I. C. C."

Yes, sir, that is how the I. C. C. is characterized — "railroad-dominated."

have an effect on rail traffic. Everybody hopes that, as production gets into full swing again, the decline will come to an end. Passenger traffic on the railroads should be heavy while our Army and Navy are being demobilized."

Robert S. Henry, assistant to the president of the A. A. R., declared that railroads have not reached, or even come near, the end of progress. "However," Mr. Henry pointed out, "technological progress on railroads never has been spectacular and never can be. That is because railroad improvements cannot be revolutionary, and, therefore, lack the dramatic element of suddenness. Every change on a railroad must work with what is already there, and must fit into the long-range improvement plans of the future. That is why the truly tremendous technological progress of the railroad industry is likely to escape public notice. But it goes on all the time, and has been going on ever since railroads began."

In describing the train of tomorrow, Mr. Henry said that the railroads now have the choice of several types of motive power, and can choose whichever is best suited for the particular work to be done. Each of these types will be improved, he added, and there may even be a locomotive using the power of atomic energy.

**Improved Sleepers.**—George H. Shafer, general traffic manager of the Weyerhaeuser Sales Company and former president of the National Association, stated that passenger cars of the future will not only be different from those of today, but will also be greatly improved. "I think the room or roomette type of sleeping car will largely, if not entirely, replace the present type of open-section sleeping car," Mr. Shafer said. "The three-tier economy sleeping car will also be widely used. Designers have been working overtime thinking up improvements in such other types of passenger cars as diners, lounge cars and observation cars. They have also produced plans for new feature cars."

"The whole idea is to make the train trip

of the future just as enjoyable and as entertaining as possible. Some of the improvements suggested were in effect to a limited extent before the war, and these will be extended and even improved upon. Others have not been tried out as yet, and their use will depend on how the public reacts to them. Many of the improvements and new features will be the result of polls taken by railroads among their passengers."

Mr. Shafer foresaw "safer, more dependable and more economical" freight service in the future. "This will be due not only to better freight cars, but also to better railroad operations," he concluded. "Freight service will be speeded up because of better locomotives, better track, better signals and communications, improved terminals and better record-keeping."

Albert R. Beatty, manager of the Publicity Section of the A. A. R., who conducted both of the programs, said that "the railroads proved during the war that they are alert to their obligations and their opportunities, and they will prove it again in the days ahead."

### Government Announces Expansion of Trans-Canada Airways

To enable the Dominion-owned airways to expand trans-Atlantic and other international services, Canada's reconstruction minister, C. D. Howe, has given notice in the House of Commons, at Ottawa, of a measure to increase the capital stock of Trans-Canada Airways from \$5 million to \$25 million. Nominally owned by the Canadian National, the railway will be given authority to acquire the increased stock, but it is said the proposed acquisition in no way prejudices the government's declared policy to have the airlines divorced from the railways, so far as domestic service is concerned.

At the same session, notice also was given of a motion to set up the annual House committee to deal with the Canadian National's budget and expenditure for the year 1944. Because of the general elections, it has not been possible to have committee examination of C. N. R. accounts before this date, it was noted.

Discussion both in the committee and in the House is expected on the question of increased freight rates, and the demand of Western farmers for lower freight rates, "bound eventually to produce a major political fight," according to one source.

### New York Central to Build New Toledo Station

The New York Central has announced plans for the early construction of a new through-type passenger station at Toledo, Ohio. The main station will consist of a three-story building with a concourse, which will serve also as the main waiting room, extending over nine station tracks, and will be flanked on either side by separate mail and express buildings.

The ground floor of the new station will contain baggage and service facilities, and the third floor will be devoted to office space, leaving the second floor for station purposes, including ticket offices, a restaurant and rest room. Each pair of tracks will be reached by a stairway from one side of the concourse and a ramp from the other. Access to the station will be by



means of a drive-way ramp from the street level direct to the second floor entrance of the building, making unnecessary the climbing of stairs or the use of elevators by passengers going between the station and the street.

The new station will be built on the approximate site of the present one and will make use of some of the present platforms, which, however, will be widened. There will be no change in present locomotive and train servicing facilities other than those occasioned by the shifting of tracks. The New York Central station at Toledo is also used by trains of the Baltimore & Ohio, Chesapeake & Ohio, Pere Marquette and Wabash.

### I. C. Maintenance Men Work Month Without Injury

The maintenance of way and structures department of the Illinois Central, during the entire month of September, worked 2,000,000 man-hours without a single reportable injury or motor car accident. According to C. H. Mottier, chief engineer of the road, there were only 23 motor car accidents and 46 personal injuries in the department in the first nine months of the year, during which 17,500,000 man-hours were worked, giving a casualty rate of 2.61 per million man-hours. This compares with a rate of 4.23 for the same period in 1944 and 5.82 for 1943.

### Welding Society Holds One-Day Session

The American Welding Society at its annual meeting held in the Hotel Pennsylvania, New York City, on Thursday, October 18, installed Dr. Wendell F. Hess, professor of metallurgical engineering and head of the welding laboratory, Rensselaer Polytechnic Institute, Troy, N. Y., as president. The Society's meeting this year was held to a one-day business session in accordance with the regulations of the O. D. T. in force at the time when convention plans were made.

Other officers installed were H. O. Hill, assistant chief engineer, fabricated steel

### Any Business Looks Easy to a Socialist

The self-confident eagerness of socializers to take over the management of any and all industry, regardless of its magnitude or complexity, reminds the "Railway Gazette" (London) of a story told back in 1923 by Sir Sam Fay, late general manager of the Great Central Railway.

"There are people," said Sir Sam, "who believe that the conduct of a transport business is quite an easy problem. They are first cousins to other people who would undertake single-handed the management of the earth and all that therein is, who would cheerfully take on the management of a chemist shop [i. e., a drug store] or an ocean liner. That they would finish up by poisoning half the population and drowning the remainder is to them a mere matter of detail."

construction, Bethlehem Steel Company, Bethlehem, Pa., as first vice-president, and G. N. Sieger, president and general manager of the S-M-S Corporation, Detroit, Mich., as second vice-president. O. B. J. Fraser of the International Nickel Company, New York, continues as treasurer.

Dr. Samuel L. Hoyt, technical advisor, Battelle Memorial Institute, Columbus, Ohio, in recognition of outstanding contributions in the welding field, delivered the annual Adams Lecture. His paper dealt with the selection of steel for welding and the desirability of studying design, welding methods and materials in such applications as building ships, bridges, railroad cars and outside structures. The lecture emphasized the greatly increased rigidity of the welded structure, as compared with the older riveted construction, and pointed out the significance of an almost completely ignored property of steel, its cohesive strength. Metal scientists, said Dr. Hoyt, have been

studying cohesive strength in their laboratories for years and their findings should be applied in steel manufacture and in the design and fabrication of welded structures.

### Equipment on Order

Class I railroads on October 1 had 38,315 new freight cars on order, according to the Association of American Railroads. On the same date last year they had 32,224 on order.

This year's October 1 total included 12,070 hopper, 4,500 gondolas, 1,292 flat, 16,525 plain box, 3,028 automobile, 850 refrigerator, and 50 miscellaneous cars.

The Class I roads also had 535 locomotives on order on October 1 this year compared with 499 on the same day in 1944. The former figure included 129 steam and 406 Diesel-electric locomotives compared with 124 steam, two electrics and 373 Diesel-electrics on October 1, 1944.

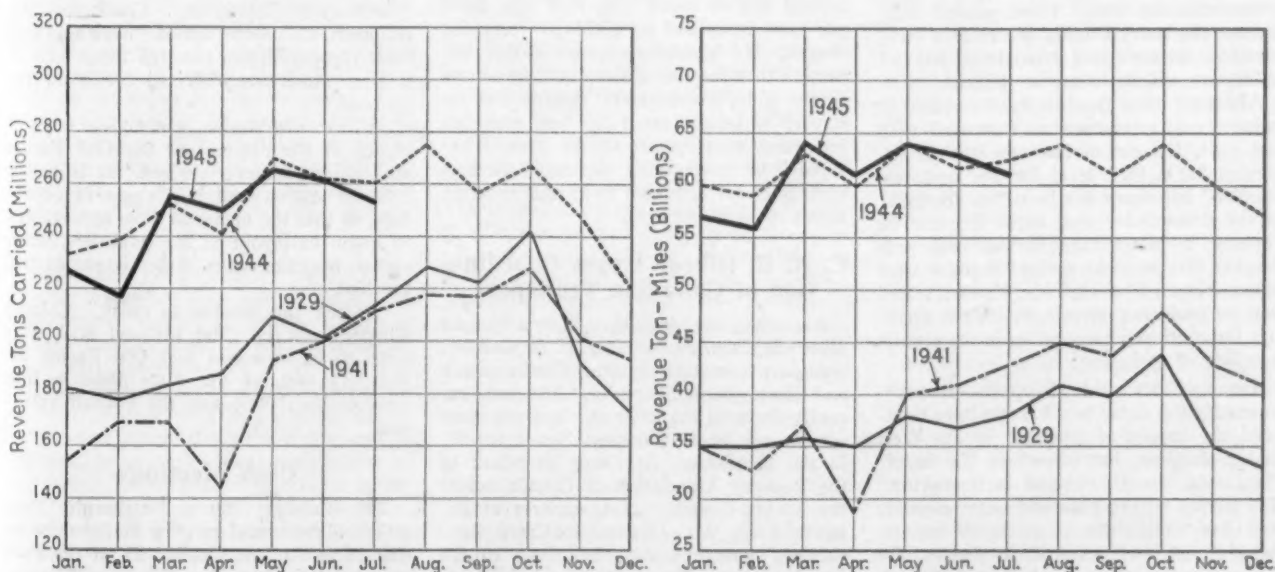
Class I roads put 30,590 freight cars in service in the first nine months this year compared with 26,156 in the same period last year. Those installed in the first nine months this year included 7,619 hopper, 4,936 gondola, 420 flat, 239 stock, 1,747 refrigerator, 1,449 automobile and 14,093 plain box freight cars, and 87 miscellaneous cars.

They also put 457 new locomotives in service in the first nine months, of which 62 were steam and 395 were Diesel-electrics. New locomotives installed in the same period last year totaled 721, which included 267 steam, one electric and 453 Diesel-electrics.

### Freight Car Loading

Loadings of revenue freight for the week ended October 13 totaled 754,521 cars, the Association of American Railroads announced on October 18. This was a decrease of 13,464 cars or 1.8 per cent below the preceding week, a decrease of 144,199 cars or 16.0 per cent below the corresponding week last year and a decrease of 157,827 cars or 17.3 per cent below the comparable 1943 week.

Loading of revenue freight for the week ended October 6 totaled 767,985 cars, and



Revenue Tons and Revenue Ton-Miles—1945 Compared With 1929, 1941 and 1944

the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

### Revenue Freight Car Loading

For the Week Ended Saturday, October 6			
District	1945	1944	1943
Eastern .....	136,592	160,900	170,134
Allegheny .....	158,477	190,792	192,270
Pocahontas .....	36,750	55,198	55,550
Southern .....	112,369	120,919	122,622
Northwestern .....	135,137	137,414	152,193
Central Western .....	131,800	139,764	138,570
Southwestern .....	56,860	72,048	75,018
<b>Total Western Districts</b> .....	<b>323,797</b>	<b>349,226</b>	<b>365,781</b>
<b>Total All Roads</b> .....	<b>767,985</b>	<b>877,035</b>	<b>906,357</b>
<b>Commodities</b>			
Grain and grain products .....	52,025	45,448	59,523
Live stock .....	24,199	23,645	22,069
Coal .....	124,532	171,527	179,294
Coke .....	10,336	13,813	14,712
Forest products .....	34,263	42,525	45,453
Ore .....	65,231	71,100	81,099
Merchandise l.c.l. .....	110,758	108,448	102,860
Miscellaneous .....	346,641	400,529	401,347
<b>October 6</b> .....	<b>767,985</b>	<b>877,035</b>	<b>906,357</b>
<b>September 29</b> .....	<b>832,263</b>	<b>912,627</b>	<b>910,644</b>
<b>September 22</b> .....	<b>837,293</b>	<b>897,883</b>	<b>907,311</b>
<b>September 15</b> .....	<b>856,105</b>	<b>891,486</b>	<b>902,766</b>
<b>September 8</b> .....	<b>730,628</b>	<b>825,166</b>	<b>834,670</b>

#### Cumulative Total,

40 Weeks ... 32,765,099 33,623,100 32,704,222

**In Canada.**—Carloadings for the week ended October 6 totaled 76,376, as compared with 73,921 for the previous week and 78,434 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
October 6, 1945 ..	76,376	31,462
October 7, 1944 ..	78,434	37,804

#### Cumulative Totals in Canada:

October 6, 1945 .. 2,766,699 1,421,979  
October 7, 1944 .. 2,805,803 1,535,187

## Freight Car Situation Remains Quite Tight

(Continued from page 652)

Loading of livestock, Mr. Kendall said, has been "heavy throughout the year and is increasing in volume." This has placed a "severe strain" on the available supply of both single and double-deck stock cars, and there have been "some deficiencies in the Western districts with certain shipments temporarily deferred." From present indications, the heavy loading of livestock "will continue through late November and all stock cars will be in urgent demand."

Although labor troubles have resulted in reduced coal production as compared with last year, the output has nevertheless remained "at a high level for the past two months," and there has been "no decrease" in the demand for coal cars. Because he expects "a better than normal coal production for the next several months after miners return to work," Mr. Kendall stated that he could not overemphasize the necessity for continued cooperation in the prompt handling of coal cars.

**Gons, Flats and Hoppers.**—Requirements for the sugar beet harvest have tightened the supply of gondolas in the West and Northwest, but elsewhere the supply "is ample, though demand is improving." The supply of both plain and heavy capacity flat cars "is slightly in excess of requirements," but they are still in demand for movement to eastern ports to protect loadings of inbound military material. While

there is at present no surplus of covered hoppers, Mr. Kendall anticipates that the demand for them will soon be eased with the seasonal stoppages of construction projects.

The C. S. D. chairman devoted considerable space to his discussion of the refrigerator car situation. He expects the supply of reefers to be "extremely tight" during the Fall and Winter "because the loading according to estimates, will continue heavy in the Mid-West, Western and Northwestern territories while requirements for Maine and Florida will steadily increase as the season approaches." Reefers awaiting repairs in September averaged 6.14 per cent of the number in service, but Mr. Kendall said that this bad-order situation "will improve rapidly" as labor and material become available. He summed up the reefer situation this way: "Refrigerator car loadings heavier than in any previous year and estimated to continue heavy throughout Fall and Winter. The available supply is tight in all principal perishable territories with some spot shortages in the West."

With respect to l. c. l. freight, Mr. Kendall reported that "a few scattered instances of labor shortages continue to obstruct free operations at certain freight houses, but in the main l. c. l. handling is on a current basis." Again he called the attention of large l. c. l. shippers to advantages inherent in direct destination loading.

**Army Travel Peak.**—Mr. Kendall's review of the military transportation situation calls attention to previously-published estimates of arrivals under the demobilization program. This schedule, he added, "has placed on the Military Transportation Section the heaviest burden since it was established in August, 1940." The port situation as to freight remains liquid except at New York where the longshoremen have been on strike. Even at that point "there is as yet no undue accumulation of cars of export freight," and the recent C. S. D. embargo affecting movements to that port was placed "to prevent adding to the bank on hand and creating additional car delay."

September detention reports indicate that the percentage of cars detained by shippers beyond the 48 hours free time was 16.43 per cent compared to 17.74 per cent for August. Mr. Kendall suggested in this connection that the Car Efficiency Committees of the Shippers Advisory Boards and receivers of freight generally "can make an important contribution to the present car supply" by endeavoring to reduce the percentage of car detention to at least the July figure of 14.58 per cent.

## C. N. R. Officer Urges Coordination of Canadian Transport

According to the highway vehicle a "proper place" in Canada's economy, F. A. Gaffney, transport economist, department of research and development, Canadian National, recently declared the railways "are and must remain the basic transportation machine" in the Dominion. Speaking on behalf of the Railway Association of Canada before the Junior Chamber of Commerce at Niagara Falls, Mr. Gaffney indicated some "serious thought" must be given to the future of the railways "to avoid the common impoverishment" that endangered their

structure in the 30's. And, he emphasized, "We must be prepared to face the fact that the railways, as the basic transportation machine, must be permitted to earn sufficient net revenues to ensure their continuance."

Mr. Gaffney said that failure to coordinate the various types of transport agencies in Canada resulted in "a huge economic loss to the taxpayer," asserting that "it would seem reasonable" that railway and highway transport be coordinated to the end that each performs the service to which it is best fitted and at the least real cost to the country as a whole.

Such coordination, Mr. Gaffney explained, could be accomplished only by the creation of a federal control body with jurisdiction over all railway and highway services. "It cannot be done," he said, "while railroads are regulated by a federal agency and highway services are in the hands of nine different commissions."

## New Haven Aids Rehabilitation of Blinded War Veterans

The New York, New Haven & Hartford has had an "impressive" hand in the rehabilitation project for blind servicemen conducted by the Army at Old Farms Convalescent Hospital, Avon, Conn., according to Col. Frederic H. Thorne, commanding officer at that post. That the Army, the servicemen and all concerned are "warmly appreciative of the cooperation given by the railroad and its employees" is clear in the account of Colonel Thorne, which appears in a recent issue of "Along the Line," New Haven employees' journal.

Facing "tremendous problems of adjustment," the blinded serviceman finds travel assuming one of his largest concerns, and it is this phase of the program in which the New Haven has been most helpful, the colonel explained.

Old Farms convalescents journey to Hartford by train, where special army buses transport them to Avon. At the Hartford station, observed Colonel Thorne, Passenger Representative Leo Barden "has particularly won the affection and good will of the men in his tireless efforts in seeing that the blinded soldier passing through gets every possible break." Conductors and trainmen, the colonel added, "have also met their responsibilities towards these men in a way which has reflected credit on the railroad."

At Hartford station, a complete train is placed at the disposal of the Old Farms authorities whenever desired. It is pulled into the station well in advance of departure, so that the men will have opportunity to learn the layout of the lavatories, wash rooms, baggage racks, water fountains and the like.

"During the months to come," Colonel Thorne believes, "the railroad will continue to be in actual fact Old Farms instructors and, at the same time, a link between the public and the blinded veterans."

## Club Meetings

The Railway Club of Pittsburgh (Pa.) will hold its annual meeting and election of officers at 8 p. m., October 25, at the Fort Pitt hotel in that city. There will be entertainment as well.



# With the Government Agencies

## Parmelee Opposes Minimum Wage Bill

**Declares enactment of S. 1349  
would raise railroad wage  
costs \$127,200,000 yearly**

Enactment of S. 1349, the pending bill to provide for upward revision of the 40-cents-per-hour minimum wage prescribed in the Fair Labor Standards Act would ultimately increase railroad wage costs by more than \$127,200,000 a year, according to Dr. Julius H. Parmelee, director of the Bureau of Railway Economics, Association of American Railroads, who testified in opposition to the bill at last week's hearings before a subcommittee of the Senate committee on education and labor. Under the bill, the minimum wage would be increased immediately to 65 cents, and it would rise to 75 cents two years after the enactment date.

The \$127,200,000 figure given by Dr. Parmelee was based on the cost of increasing to 75 cents per hour the wage rates of the 475,000 railroad employees now receiving less. The B. R. E. director pointed out, however, that the total increase in annual payroll would be "much larger," since the adjustment would "unquestionably be followed by a great deal of pressure" on the part of higher-rated employee groups who would insist upon maintaining existing differentials.

Again without including adjustments to maintain differentials, Dr. Parmelee calculated that a 65-cent minimum would increase railroad payrolls by \$34,200,000 a year with 256,000 employees directly affected. Meanwhile, he pointed out that the railroad industry's minimum wage, so far as the larger roads are concerned, is now 57 cents per hour, a rate which has been in effect since December 27, 1943. Thus a railroad employee on the minimum rate would earn straight-time wages of \$116.28 during a month of 25½ working days. Dr. Parmelee contrasted this with the \$51 per month which a similarly-situated employee earned in 1938, noting that the increase amounted to 128 per cent.

**Inflationary.**—Generally, the B. R. E. director developed four arguments against enactment of the bill as follows: First, it proposes "a radical increase in the minimum wage rate, which will fall with unequal force on different sections and different industries"; second, it is "not so much a minimum wage proposal as it is a proposal to institute, by statutory enactment, a general and nation-wide increase in the whole industrial wage structure"; third, it is "distinctly inflationary in character, and its passage will not only not be beneficial to labor but will be to the disadvantage of the workers, as well as to all other citi-

zens"; fourth, this is not the time, during the period of war-to-peace reconversion, to institute "so drastic and sudden a change in the general wage structure."

With respect to the potential effect on employment, Dr. Parmelee supplied figures showing how wage increases in the past have stimulated reductions in the total amount of employment available in the railroad industry. Speculating as to the future outlook for employment, he called attention to indications that layoffs of 565,000 employees now working in the industry may be in prospect.

**Large Layoffs Predicted.**—Taking post-war traffic estimates of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics, Dr. Parmelee calculated that if such estimates prove accurate, railroad gross revenues in the early post-war years will be about \$6 billion a year—a gross which would support "not more than 1,000,000 jobs on the basis of current rates of pay."

In 1944, the B. R. E. director went on, the Class I roads reported an average of 1,414,000 jobs, and in addition they had more than 300,000 men in the armed forces. He assumed that not more than three-quarters of the latter will want to return to railroad service, while 60,000 eligible for full retirement would leave the service; and then proceeded to calculate that re-employment of the 225,000 returning servicemen, while getting total employment down to 1,000,000 jobs, would bring the 565,000 layoffs mentioned above. "To the extent that wage rates increase above the present all-time peak, the industry would find it necessary to further curtail employment," Dr. Parmelee added.

## I. C. C. Requires Write-down of Surplus in Merger Accounting

Consolidated earned surplus of the Kansas City Southern system will be reduced by \$1,501,574 as a result of the report and order by the Interstate Commerce Commission, Division 1, in the No. 29223 investigation of proper accounting for the merger into K. C. S. of the Texarkana & Fort Smith properties. The investigation was instituted by the commission after K. C. S. had refused to comply with directions of the Bureau of Accounts, and the decision requires compliance with those directions.

Thus the transaction must be cleared through Account 702½A, Acquisition Adjustment, with the Texarkana properties taken into K. C. S. accounts at their original cost figure of \$10,081,227 instead of their book value. This will result in a complete write-off of Texarkana's surplus of \$1,273,448 and a write-down of K. C. S.'s surplus by \$228,126—a total reduction in the system's consolidated earned surplus of \$1,501,574, as noted above. Additional details were given in the *Railway Age* of July 7, page 45, where Examiner Homer H. Kirby's proposed report was reviewed.

## Bulwinkle Bill Still Gets Strong Support

**No opposition appeared this  
week, but Georgia's Govern-  
or Arnall's is expected**

Virtually unanimous endorsement of H. R. 2536, the bill introduced by Representative Bulwinkle, Democrat of North Carolina, to stay operation of anti-trust laws, with respect to carrier rate-making procedures and other joint actions approved by the Interstate Commerce Commission, is indicated as hearings of the measure continue before a House interstate and foreign commerce subcommittee. At sessions subsequent to those reported in the *Railway Age* of October 13, page 616, the bill was supported by additional testimony from railroad executives and state regulatory commissions, by representatives of truck, bus, and water carriers and freight forwarders, and by shipper organizations, including the National Industrial Traffic League.

**Tom Clark the Only Anti**—The only opposition thus far of record is that of Attorney General Tom C. Clark who has written the committee a letter expressing the Department of Justice's objections to enactment of the bill in its present form. However, Governor Arnall of Georgia who is pressing that state's anti-trust complaint against certain railroads in the United States Supreme Court, is scheduled to appear at one of next week's sessions.

The railroad industry's presentation was concluded with statements from Gustav Metzman, president of the New York Central, and C. McD. Davis, president of the Atlantic Coast Line. Mr. Metzman stressed the "absolute necessity" for cooperative action by the railroads through appropriate organizations and machinery if they are to continue the coordinated performance which has come to be taken for granted. President Davis of the A. C. L. called upon his years of experience in rate matters to make the point that the railroads would find it virtually impossible to maintain a rate structure which would be satisfactory either to themselves or to their shippers without the conference method of rate making.

**Railroads Must Cooperate**—Along the same line, Mr. Metzman had said that the whole process of railroad rate making would "bog down in confusion and public disservice" if the railroads are not permitted to discuss the initiation of new rates among themselves and with shipper organizations. Pointing out that each railroad is autonomous, the N. Y. C. president explained how railroad operations are nevertheless interrelated.



"If each railroad conducted its interdependent and interrelated operations in complete and utter disregard of the practices of other railroads," he continued, "it is obvious that chaos, inefficiency and even disaster would result. . . . For years the railroads have been under imperative necessity of conferring with each other and of establishing mutually serviceable practices and arrangements in respect of interrelated operations. It has been assumed not only that this was authorized but in some respects was actually required by law. Without recourse to other provisions of the Interstate Commerce Act, statutory requirement of such cooperative procedure is found in the national transportation policy set forth in that act of Congress which provides that the whole Interstate Commerce Act shall be administered and enforced 'all to the end of developing, coordinating and preserving a national system.'

"Clearly, it would be impossible to develop, coordinate, and preserve a single national transportation system if each of several hundred separate carriers were to conduct its affairs . . . in disregard of the ways of other carriers and if each carrier were to live in isolation rather than to cooperate where cooperation is the only alternative to chaos and disaster. As a matter of fact, the cooperative performance of American railroads in connection with their interrelated services constitutes what is a most outstanding example of the efficient operation of free American enterprise, geared to and magnificently serving the public interest, in peace and in war."

**I. C. C. Scrutiny Is Ample**—Declaring that the I. C. C. "is the best equipped and best qualified public agency to determine which joint arrangements of the railroads are in the public interest and which are against the public interest," Mr. Metzman concluded: "It seems to us that the least the railroads are entitled to know, and to know in advance, if they are expected to do the kind of job that the national welfare requires, is whether they may or may not go forward with specific joint arrangements without risk of prosecution, including criminal indictments."

Following through from his defense of the conference method of rate making, President Davis of the A. C. L. asserted that the situation resulting from activities of the Department of Justice has created the need for a "straightforward, sensible remedy." He thinks enactment of the bill would supply such a remedy, for it would go no further than to sanction cooperative action which met requirements of the Interstate Commerce Act and furthered the purposes of the national transportation policy.

"In order to understand the functions and purposes of the rate conference procedure," Mr. Davis went on, "it is important to keep in mind certain controlling facts and circumstances. The Interstate Commerce Act requires that rates be reasonable, neither unreasonably high nor unreasonably low, and that they be fairly related to each other in order to avoid discrimination between shippers, communities, ports or regions, and to also avoid discriminations between different kinds of traffic.

### W. P. B. Revokes Order L-41

Making good on its recent promise in that connection, the War Production Board has revoked construction order L-41, thus removing all W. P. B. controls over construction, effective October 15. Since controls over industrial construction and construction of transportation facilities had already been removed, the principal types of construction still under controls at the time of the revocation were housing, commercial construction, and public works.

"The commission is given power to fix maximum and minimum rates and to fix relationships between rates necessary to avoid discriminations. In this connection, it should never be forgotten, although apparently sometimes it is, that the law places upon the railroads the duty to initiate rates which meet the same standards as those I have mentioned as governing the commission in fixing rates."

**Cosmos vs. Chaos**—Mr. Davis did not know how the railroads were going to perform this duty unless through the conference method. And he stressed his contention that the conference method "does not and cannot in any event or under any conditions operate to deprive a shipper of a reasonable and non-discriminatory rate."

"The rates which are initiated under the conference procedure," he explained, "must be filed with the commission and any shipper, or any railroad, who is dissatisfied with such rates, may take his grievance to the commission, and the commission has full authority to suspend the operation of a published rate before it becomes effective. The activities of a rate conference are, therefore, entirely preliminary and without final effect, unless the outcome is agreeable to all interests. No one is bound or prejudiced in any way by what is done or not done in a rate conference."

In closing the A. C. L. president found evidence of general satisfaction with the conference method in the fact that "the overwhelming majority of proposals which come before these conferences are disposed of in a manner acceptable to all interested carriers and shippers." He does not see how there can be "any fair objection" to such activities; but on the contrary believes they should be "encouraged and protected."

Meanwhile J. M. Hood, president of the American Short Line Railroad Association, had testified that the short lines are peculiarly affected by the need for the conference rate making, since almost every movement in which they participate takes place under rates jointly arrived at. The short lines originate or terminate about 20 per cent of all freight in the United States, Mr. Hood said, adding that they cannot carry on their business without joint action.

**Reduced Printing Costs**—Last of the railroad traffic officers to appear was John E. Tilford, vice-president of the Louisville & Nashville, whose statement included a discussion of the "economy and

efficiency" of the rate conference plan and the publication of agency or common tariffs as compared with individual railroad actions in rate adjustment and tariff publication matters. Figures presented by Mr. Tilford showed that the L. & N. in 1923 spent \$210,144.26 for the printing of its individual tariffs, and \$181,731.74 for the services of tariff publishing agents and its share of rate association expenses. In 1940, only \$10,552.12 was spent for the printing of individual L. & N. tariffs, while payments for services of tariff publishing agents and contributions to rate associations totaled only \$120,206.85.

Mr. Tilford explained that the L. & N. made a study in 1923 with the result that it decided to transfer many of its rate schedules to the agency tariffs. And the foregoing figures, as he put it, "clearly show" that the rate association and tariff bureau plan "is far more economical than when a railroad publishes its own rates."

Spokesmen for other types of carriers appearing in support of the bill were Jack Garrett Scott, general counsel, National Association of Motor Bus Operators; Roland Rice, general counsel, American Trucking Association, Inc.; Chester W. Thompson, president, American Waterways Operators, Inc.; Maitland Pennington, secretary-treasurer, National Federation of American Shipping, and Giles Morrow, executive secretary and general counsel, Freight Forwarders Institute. Also at this stage of the proceeding came the favorable statement of John T. Corbett, assistant grand chief engineer and national legislative representative of the Brotherhood of Locomotive Engineers.

**Amendments Proposed**—The principal presentation in behalf of the N. I. T. League was made by F. F. Estes, chairman of the legislative committee, who endorsed the "principle and purpose" of the bill while suggesting the adoption of three amendments "that will bring it more in harmony and consonance with the views of shippers." First of these proposed amendments would restrict the authorized rate conferences and joint actions to carriers of one type, except as to matters of joint rates or through routes over different types of carriers. As noted in last week's issue, Judge R. V. Fletcher, vice-president of the Association of American Railroads, said earlier in the hearing that such an amendment would be agreeable to the railroads.

The second amendment suggested by the N. I. T. League would, as Mr. Estes put it, "further strengthen" that language in the bill which provides that joint-action procedures shall not prevent any carrier from taking independent action. And the third would add provisions giving any person the right to complain to the commission of any action taken pursuant to an agreement approved by the commission—whereupon the commission would after hearing determine whether its approval of the agreement should be modified or terminated with respect to the action complained of. Mr. Estes explained that this "protection" was not necessary with respect to rates, where the commission has full jurisdiction; but the League thinks it is desirable with respect to matters involving service and facilities.

**Long Litigation Foreseen**—John B. Keeler, president of the League, made a brief statement to urge enactment of the bill to resolve any doubt as to the legality of the long-standing rate procedures. "Unless this is done," he said, "we are going to have confusion confounded in our rate making which will be vitally hurtful to both the shippers and the carriers."

Colonel A. B. Barber, manager of the Transportation and Communication Department, Chamber of Commerce of the United States, filed for the record the report endorsing the bill which was issued by that department's committee last April. "We consider it significant," Colonel Barber said, "that the expressions which have come to the Chamber headquarters from our members all over the country with respect to this legislation have been unanimously favorable."

Kenneth F. Burgess, appearing for the Transportation Association of America, called attention to the fact that what supporters of the bill asked for surface transportation had already been granted by the Civil Aeronautics Act to air transport. That act, he said, provides that air carriers must submit to the Civil Aeronautics Board their agreements as to rates; and that board must approve such agreements if it finds them not adverse to the public interest. Another provision, Mr. Burgess went on, declares that agreements thus approved are relieved from the operation of the anti-trust laws.

He urged that it was in the public interest to enact a similar relief measure for surface carriers. "If this bill is passed," he said, "it will permit the rate and tariff bureaus to function in a lawful manner, subject at all times to regulation by the Interstate Commerce Commission. The public interest will be safeguarded. . . . There will finally be put to rest the bogey man that now confronts carriers and shippers alike whenever they meet in conference to discuss the freight rate adjustments that are vital to the economic development of every section of the United States."

The numerous other witnesses appearing before the subcommittee to support the bill included spokesmen for state regulatory commissions, regional traffic associations, state and city chambers of commerce, farm organizations, shipper groups and individual shippers, motor carrier rate bureaus and individual motor carrier operators.

### Denies Permit for Landing-Craft Service for Trucks

The Interstate Commerce Commission, Division 4, has denied the application of H. E. Savage, Jr., for a certificate or permit authorizing operations as a carrier by water of loaded motor-truck trailers between Norfolk, Va., Baltimore, Md., Wilmington, Del., Philadelphia, Pa., New York, Providence, R. I., and Boston. The report is in No. W-911, and the plan of the applicant, who is a motor truck operator, contemplated use of vessels of the so-called "landing-craft" type, like the Navy's LST (landing ship, tank).

Truckers desiring to use the water route would leave their loaded trailers at designated port terminals for transportation by the applicant to such ports as they would specify when they would again assume

possession of them. The commission's report called the proposed water line "a unique departure from established methods of transportation." The application was supported by certain motor carriers, but it was opposed by railroads and steamship lines.

The commission's adverse finding was based on its conclusion that the evidence failed to indicate that Savage was in a position to set up the operation he proposed. The specific finding was that the applicant had not shown that he is "fit or able" to do so within the meaning of those terms as used in section 309 (c) and (g) of the Interstate Commerce Act. A footnote explains that the term "fit" as thus used "has no reference to the personal qualifications of applicant."

Much of the report was devoted to a discussion of applicant's contention that the operations he proposed would be exempt from regulation under the exemption provisions of Part III of the act. The commission rejected the contention.

### August Accident Statistics

The Interstate Commerce Commission on October 11 made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for August and this year's first eight months. The compilation, which is subject to revision, follows:

Item	Month of August		8 months ended with August	
	1945	1944	1945	1944
Number of train accidents*	1,303	1,395	11,550	10,857
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed .....	189	164	1,131	1,031
Injured .....	126	121	815	764
Passengers on trains:				
(a) In train accidents*				
Killed .....	34	33	52	76
Injured .....	170	176	1,240	1,048
(b) In train-service accidents				
Killed .....	6	5	48	38
Injured .....	247	272	1,821	1,931
Travelers not on trains:				
Killed .....	79	1	6	8
Injured .....	83	748	675	
Employees on duty:				
Killed .....	66	80	587	661
Injured .....	4,085	4,446	31,588	31,109
All other nontrespassers:**				
Killed .....	137	123	1,277	1,229
Injured .....	442	479	4,457	4,313
Total—All classes of persons:				
Killed .....	432	406	3,101	3,043
Injured .....	5,149	5,577	40,669	39,840

\* Train accidents (mostly collisions and derailments) are distinguished from train service accidents by the fact that the former cause damage of more than \$150 to railway property.

\*\* Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed .....	120	116	1,138	1,099
Injured .....	256	266	2,523	2,491

### Representation of Employees

The Railroad Yardmasters of America has supplanted the Order of Railway Conductors as the Railway Labor Act representative of Chicago Great Western yardmasters, according to results of a recent election which has been certified by the National Mediation Board. Also, the National Council Railway Patrolmen's

Unions, American Federation of Labor, has supplanted the International Brotherhood of Railway Police as representative of Spokane, Portland and Seattle patrolmen, while the International Brotherhood of Electrical Workers, operating through the Railway Employees Department, A. F. of L., has supplanted the Order of Railroad Telegraphers as representative of electrical workers, their helpers and apprentices employed in the Telegraph and Telephone Department of the Missouri-Kansas-Texas.

On the Lehigh & Hudson River, the Order of Railway Conductors defeated the challenging Brotherhood of Railroad Trainmen and retained the right to represent road conductors. On the Cambria & Indiana, where an election among maintenance of way employees was held in response to a request from the Brotherhood of Maintenance of Way Employees, N. M. B., was unable to make a certification for the reason that no organization received a majority of the legal votes cast. These employees are not represented by any individual or organization.

On the Union, the Brotherhood of Locomotive Engineers, which previously represented engineers, firemen and certain hostlers, has extended its coverage to include additional hostlers and hostler helpers formerly represented by the United Steelworkers of America, Congress of Industrial Organizations. There was a dispute as to the eligible list of voters and the C. I. O. union declined to have its name placed on the ballot, but the Brotherhood of Locomotive Firemen & Enginemen contested the election with the B. of L. E.

### Roads Still Hit by Manpower Shortage, Johnson Says

Manpower shortages "continue to hamper railroad operations, particularly in the West Coast area and present a serious problem in view of the heavy troop movements and greater than pre-war volume of freight traffic," said an October 12 statement from Colonel J. Monroe Johnson, director of the Office of Defense Transportation. The O. D. T. director referred to the "most recent estimates" which show that "more than 5,800,000" soldiers, sailors and marines will land at the country's ports between now and next June—"more than 4,000,000" of them at Pacific Coast ports.

He explained that the process of moving these men to staging areas and distribution centers and then to their homes or to other Army installations "will necessitate an estimated 1,400,000 rail man-moves monthly through October, November, and December," as compared with the previous August monthly peak movement of 1,260,000.

"With arrivals on the West Coast at the rate of over 400,000 a month from now through May," Colonel Johnson added, "the comparatively limited railroad facilities of the West will be severely taxed. Too, these very railroad lines are being seriously hampered by the continuing shortages of trained men in train and engine service and in maintenance of way and equipment work."

Referring to recent reports from the Railroad Retirement Board's employment service, the O. D. T. director noted that, as of October 1, unfilled openings in all railroad occupations totaled 69,840, an increase of



1,765 above the September 1 figure. He also called attention to that fact that the unfilled openings in the western regions on October 1 totaled 19,129, a drop of only 21 per cent as compared with May 1, "when manpower needs were at their height." Meanwhile, unfilled openings reported for the other regions dropped 48 per cent—from 98,220 to 50,711.

"The combination of heavy traffic and proportionately larger needs for the western carriers serving the Pacific Coast, located as they are to a large extent in sparsely settled country, presents a difficult problem," Colonel Johnson went on. "The present manpower difficulties have been accentuated by the loss of many new employees who have left railroad service since the removal of manpower controls. It is probable that the return of service men to civilian life and the general readjustment of the labor supply throughout the country will bring railroad employment back to normality by the mid-months of 1946. In the immediate future, however, the high levels of traffic will require more men than are available at this time to carry on railroad operation."

### New Ceiling Prices on Wrought Steel Freight Car Wheels

Higher manufacturers' ceiling prices for two sizes of wrought steel freight car wheels have been authorized by the Office of Price Administration under Amendment No. 16 to Revised Maximum Price Regulation No. 136, which became effective October 16. The new ceilings, f. o. b. Chicago or Pittsburgh, Pa., are as follows: Class 33-C wheels, \$21.80 each; Class 33-D, \$23.60 each.

To these prices manufacturers may add additional charges for "extras" they had in effect October 1, 1941, the O. P. A. announcement explained. It also said that the higher ceilings, amounting to increases of approximately 18 per cent, reflect "increased direct labor rates and material costs experienced by manufacturers since October, 1941."

### Aftermath of Beaver-Mahoning Canal Report—a Rate Cut

Following generally the recommended findings of Examiner Howard Hosmer's proposed report, which was noted in the *Railway Age* of January 6, page 129, the Interstate Commerce Commission has issued a report and order according Youngstown, Ohio, and nearby points in the Mahoning and Shenango valleys steel-producing district lower rates on all-rail coal from the Pittsburgh, Freeport and Leetonia districts in Pennsylvania and on ex-river coal from Conway, Pa., and Colona. The report by Commissioner Aitchison is in the No. 28825 proceeding and Commissioners Porter and Patterson dissented.

The order instituting the investigation upon the commission's own motion came along after the commission had met the late President Roosevelt's request for a report on the proposed Lake Erie-Ohio canal, which report included I. C. C. comment on the Army engineers' findings that "if the railroads would permanently reduce rates by an average of 29 cents per ton

prior to construction of the waterway, the through project could not be justified." The I. C. C. report (see *Railway Age* of February 3, 1940, page 245) warned that "railroads weakened by the provision of facilities for their competitors can not respond as fully as they should to the needs of the public for efficient and safe transportation." It went on to note that substantial revenue losses would be suffered by the railroads if their coal rates in the territory involved were to be cut 29 cents per ton.

### Will the Cut Silence Canal Clamor?

—Now the commission has ordered cuts ranging from five to 12 cents per ton. It has reduced the \$1.44 rate from the Pittsburgh and Freeport districts to \$1.37, from the Pittsburgh district and to \$1.32 from the Freeport-district points of Indianola and Russellton. The Leetonia district-Youngstown rate is reduced from 94 cents per ton to 89 cents, and the ex-river rates from Conway and Colona from 90 cents to 80 cents. While the commission's canal report is mentioned incidentally in the majority report, the mention is followed by an assertion that "the record contains no evidence with respect to any effect which reductions in the coal rates here under investigation might have on the proposal to construct a canal."

Dissenter Porter, however, had a little more to say about the matter as he rounded out his complaint that the cuts ordered by the majority did not go far enough in that "they will be of no real help to anyone interested in this proceeding but will result in considerable reduction of revenues to the carriers." Mr. Porter recalled that the Youngstown Chamber of Commerce's exceptions to the examiner's recommendations had referred to the proposed cut of seven cents in the key rate from the Pittsburgh district as "almost ludicrous," adding that if the commission could do no better than that "we will have to redouble our efforts" to find a cheaper form of transportation—"meaning canal transportation," as Commissioner Porter interpreted it.

**Porter Favors Larger Cut**—"Quite certainly," Mr. Porter added, "a 29-cent reduction, in my opinion, is not needed to stop the proposed canal; a 15-cent or even a 12-cent reduction in the Pittsburgh district rate and a 10-cent reduction in the ex-river rate [as ordered by the majority] would probably forestall it." He would make a 12-cent reduction in the Pittsburgh district and extend the 12-cent cut ordered by the majority in rates from Indianola and Russellton to the entire Freeport district. Finally he would make the Leetonia district-Youngstown rate 84 cents instead of 89 cents.

With respect to the 12-cent cut which he would make in the Pittsburgh district rate, Commissioner Porter had this further to say: "Such a reduction might easily save the carriers more than it would cost them, because if water competition increases, particularly if a canal is constructed as has been suggested, not only would the rail carriers lose practically all of their Youngstown movement from the Pittsburgh district, but also a great deal of the heavy tonnage from the Kanawha and Kenova districts. The Kanawha river

is navigable from the Kanawha and Kenova districts to the Ohio river; its depth is 9 feet, the same as the Ohio."

Commissioner Patterson's dissent was based principally upon his objections to reduction of the ex-river rates and the prescription of lower rates from the Freeport district than from the Pittsburgh district. He noted that these majority findings disturbed previous relationships between all-rail and ex-river rates and changed long-standing conditions under which the Freeport and Pittsburgh districts have been taking the same rates. "In my opinion," he said, "the record is wholly insufficient to warrant a disruption of the existing long-standing group adjustment."

### Reargument in E. J. & E. Case Involving Adjustment Board

The United States Supreme Court on October 16 issued an order granting rearargument in *Elgin, Joliet & Eastern vs. Burley*, wherein the court's previous decision held that a National Railroad Adjustment Board award in a case having to do with employee grievances does not deprive affected employees of the right to ordinary court processes to obtain judgment if it can be shown that such employees had not individually and specifically authorized the union designated as the exclusive bargaining agent to act in their behalf. The rearargument is assigned for December 3.

This decision, reported in the *Railway Age* of June 16, page 1072, caused consternation in the camps of the railroad labor organizations; and ways and means of extricating the Adjustment Board from the situation in which it has been placed have since been sought at a series of labor-management conferences.

### O. D. T. Port Controls Now Completely Eliminated

The Office of Defense Transportation completely eliminated its unit permit system covering shipments of overseas freight to ports, effective October 15. This action was taken by the issuance of General Order ODT 16C, superseding and revoking General Order ODT 16B.

Since June 1, 1942, the control of export freight by the unit permit system has effectively prevented congestion on rail lines leading to ports, the O. D. T. announcement said.

Under General Order ODT 16C, permits are no longer required for export freight shipments. However, freight other than grain and bulk, petroleum and petroleum products in bulk, carload shipments of coal in bulk, and shipments consigned to the United States armed services or the War Shipping Administration must be consigned to guaranteed storage or with firm booking to an ocean carrier, and rail shipping documents must contain a certification of compliance with Order 16C.

### September Employment Down

Railroad employment declined 2.47 per cent—from 1,449,293 to 1,414,504—during the one-month period from mid-August to mid-September, and the September total was 0.84 per cent below that of September, 1944, according to the preliminary sum-



mary based on reports from Class I line-haul roads and prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The index number, based on the 1935-39 average as 100, was 135.2 for September, as compared with August's 139.1 and September, 1944's 136.3.

September employment was below that of the previous month in all groups, the range being from the 4.82 per cent decline in the maintenance of way and structures group to the 0.02 per cent drop in the number of executives, officials, and staff assistants. Four groups were below September, 1944, and three above, the range of the decreases being from 2.57 per cent for the train and engine service group to 0.38 per cent for the "professional, clerical, and general" group. The range of the increase above September, 1944, was from 2.92 per cent for executives, officials, and staff assistants to 0.4 per cent for the maintenance of way and structures group.

### I. C. C. Service Orders

Arrangements whereby W. F. Kirk has acted as Interstate Commerce Commission agent at Chicago for the purpose of diverting and rerouting carload traffic and empty cars in western territory in order to avoid congestion and expedite movement, will be discontinued on October 31. The commission has issued Service Order 99-A vacating as of that date Service Order No. 99 which set up the diversion and rerouting plan in February, 1943.

Service Order 71-B, issued October 5 and effective on that date, reinstates the previously-cancelled Service Order 71 which suspends rules permitting carriers to furnish for livestock loading cars of greater capacity than those ordered by shippers.

Service Order No. 357, effective from October 24 until February 20, 1946, unless otherwise provided, authorizes the furnishing of refrigerator cars in lieu of box cars ordered for the transportation of fruit and vegetable containers and box shooks from Houston, Texas, Marshall, Mineola, Paris, Ashdown, Ark. and Hope, to destinations in the Texas-Rio Grande valley.

Service Order 160-E suspends from October 15 until November 16, the provisions of Service Order No. 160 which prohibits holding cars loaded with grain or seeds at five Minnesota points for diversion, reassignment, or disposition order.

### 1944 Salaries Over \$10,000 Took 0.58% of Payroll

Officers receiving salaries of \$10,000 a year or more in 1944 took 0.58 per cent of that year's aggregate payroll of Class I line-haul railroads and Class I switching and terminal companies, including 24 carriers in those classes which reported no salaries of \$10,000 or more. This is the same as the 1943 percentage, although there were 1,356 officers receiving salaries of \$10,000 or more in 1944 as compared with 1,286 in 1943, and the aggregate amount paid to them was \$23,000,745 as compared with \$21,234,243.

This information, derived from returns made by the carriers in their annual reports under Schedule 562, has been sum-

marized in Statement No. 4521 of the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The compilation shows that the average 1944 compensation of the \$10,000-and-over salary group was \$16,962, compared with a 1943 average of \$16,504. The comparable figure for 1939, when 1,080 officers received salaries of \$10,000 or more, was \$17,309. The \$10,000-and-over group made up 0.093 per cent of the total number of employees in 1944 as compared with 0.092 per cent in 1943.

Twenty-one 1944 salaries were in the \$60,000-and-over group as compared with 20 in 1943. The aggregate 1944 compensation of these top executives was \$1,445,000 or 6.28 per cent of the total paid to the \$10,000-and-over group. Salaries of 736

officers or more than half of the group fell in the \$10,000 to \$14,999 class, while 199 officers received 1944 salaries of \$25,000 or more, as compared with 190 in 1943.

In addition to the information on annual salaries of \$10,000 or more, the statement contains a table which summarizes data on salaries paid by Class I line-haul roads to executives, officials, and staff assistants assigned to Division 1 and Division 2 in the commission's wage statistics. The employees assigned to those divisions in the 1944 statistics totaled 14,591, including 6,489 executives, general officers and assistants, whose average 1944 salary was \$7,882; and 8,102 division officers, assistants and staff assistants, whose average was \$4,882. These compare respectively with 1929 averages of \$7,508 and \$4,166.

## Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since September 28, and which are of interest to railways:

**Elimination of Controls**—To eliminate controls made obsolete by the new W. P. B. rating system and the expiration of the C. M. P. which became effective last midnight, the W. P. B. amended PR-1 on October 1. All references to defense orders and to specific authorizations rated AA-5 were eliminated. The order of precedence of preference ratings in the regulation was reworded to read: AAA, MM and CC, in conformity with the simplified priorities ratings system established in PR-29. The AAA rating is for emergencies, MM for military needs, and CC for needs of civilian industry in special cases.

Concerning the effect of revocations of W. P. B. orders and regulations, the amended PR-1 states that all directions, authorizations, production or delivery schedules or other instruments addressed to named persons pursuant to any order or regulation that was revoked before October 1 are revoked on that date. When any order or regulation is revoked after October 1, all such related instruments also are revoked unless otherwise stated in the revocation. A footnote states: "See PR-31 for the special rules when orders are revoked under that regulation." Direction 1 to PR-1 was amended to eliminate obsolete references to allotments and frozen schedules.

Interpretation 3 to PR-1 was amended to change the ratings quoted in an example of manufacturer's filling an order with split ratings. The rating MM was substituted for AA-4 and CC rating for AA-5 in the illustration.

Interpretation 4 (Acceptance of rated orders for use of facilities by controlled materials producers) was eliminated, as were obsolete references in other interpretations to PR-1.

Simultaneously, eleven directions to PR-3 (Application and Extension of Preference Ratings) which are now obsolete or invalidated, were revoked.

Direction 7 to PR-3 was amended to eliminate obsolete references to controlled materials and frozen schedules.

The eleven directions to PR-3 which were revoked follow:

Direction 1—Use of ratings assigned on WPB-837 for maintenance, repair and operating supplies; 3—Containers; 4—Hand tools and safety equipment purchased by employees; 5—Ratings for listed chemicals and other materials; 6—Split ratings; 8—Ratings for flat wick lamp burners and gasoline pressure lanterns; 10—Refrigeration and air conditioning systems and parts; 11—MRO ratings for certain items of service equipment invalidated; 12—Hardwood flooring; 13—Extension of ratings for incandescent, fluorescent, and glow discharge lamps.

Direction 10 to PR-1, governing railroad brake shoes, also was revoked.

**L-41 Revoked**—Revocation of the construction order L-41, effective October 15, removes sales price ceilings on N. H. A.'s H-1 and H-2 war housing programs previously set by N. H. A., acting as agent for W. P. B. Rental ceilings will still be set by the O. P. A. in areas under that agency's control. In areas not controlled

by O. P. A., rental ceilings set by N. H. A. will no longer be in force.

**Removal of price ceilings** through elimination of W. P. B. controls on construction is not to be construed as an expression of opinion on the need for such ceilings generally, W. P. B. officials pointed out. The need for control over housing sales prices as a general matter is currently under discussion by the O. P. A. and O. W. M. R., they said, and the result of these discussions will be presented to Congress.

**Lumber**—With the removal of wartime controls on the distribution of lumber on September 30, on allotments will be made in the fourth quarter and lumber users are now free to order and receive lumber without restriction, except for existing inventory controls, the W. P. B. said recently.

Applications for fourth quarter allotments (filed on W. P. B. Form 3640) have been returned to industrial consumers without action. Instead, these consumers are required to file a quarterly report of their lumber inventories, consumption and requirements (Form W. P. B.-4349) not later than October 15.

Pointing out that preference ratings are still being issued for military orders and certain essential civilian programs, W. P. B. said that these reports will enable it to appraise the general lumber situation as a basis for determining whether procurement assistance is needed and what form it should take. Information obtained from the reports will be used to expedite prompt delivery of lumber for essential civilian activities.

**Priority Regulations**—Five priorities regulations were amended October 8, by the W. P. B. to remove references made obsolete by the new preference rating system and the abolition of the C. M. P.

The amended regulations are PR 7A (Transfers of quotas, preference ratings, and transfers of a business as a going concern); PR 12 (Reratings); PR 17 (Post Exchanges and Ship's Service Departments); PR 22 (Deliveries into the Dominion of Canada); and PR 23 (Experimental Models).

**Rope**—As a result of substantial reductions in military requirements for sisal rope, all restrictions on the uses of rope made from agave fiber have been removed by amendment to Conservation Order M-84, which controlled the production and distribution of rope and rope fibers throughout most of the war period. The title of the amended order has been changed to Order M-84 amended, Manila (Abaca) and Agave Fiber and Cordage.

### Prices

**Anti-Freeze**—Ceiling prices for glycerine base anti-freeze containing at least 95 per cent glycerine by volume have been increased 21 cents a gallon, or five cents a quart, at all levels of distribution including retail, the O. P. A. announced October 15.

**Automatic Control Equipment**—An industry-wide price increase factor of five per cent was established by the O. P. A. on October 9, for use in computing reconversion ceiling prices for automatic electric temperature control equipment.

**Construction Machinery and Equipment**—An interim increase of five per cent in the ceiling prices for basic construction machinery and equipment urgently needed in post-war public works, highway and home construction and maintenance programs was provided by Amendment 13 to RMPR-136 effective September 28. The upward adjustment is at the manufacturers' level, and may be passed on to buyers by resellers at all levels of distribution.

The increase is applicable to more than 100 classifications of items, including cranes, dredges, drills, graders, concrete mixers, loaders, road maintainers, pavers, rollers, street sweepers, track-laying and industrial wheel type tractors, half-track trucks and crawler wagons.

**Douglas Fir Car Material**—The ceiling prices provided for railway and car material made from Douglas fir and associated species of lumber may be charged by sellers only in direct mill shipments to railroad car builders, railroad car and equipment repair shops, and railroad themselves, according to Amendment No. 18 to RMPR No. 26—effective October 15.

Non-railroad users of Douglas fir lumber of grades and patterns specified for freight car material, such as car framing, lining, roofing, siding, and decking may pay the ceiling prices provided for this material only after applying to O. P. A. and receiving approval to do so.

The use of the ceiling prices for railway car material, O. P. A. explained, is now limited to direct-mill shipments to designated users. Reports have been received by O. P. A. that numerous lumber concerns have been selling car material to non-railway users who did not necessarily need lumber meeting car material specifications. The ceiling price for car material is higher than a seller may charge for Douglas fir lumber not selected and prepared to meet railway car material specifications.

**Fractional Horsepower Motors**—An increase of nine per cent of producers' ceiling prices for fractional horsepower motors has been provided by Amendment 17 to RMPR-136, effective October 16, and is designed to remove any price impediment to expansion of production of these motors.

**Rubber Flooring**—Manufacturers of rubber flooring may make sales at prices that can be increased later to any higher ceiling established for this product as the result of a study now being made of current production costs, the O. P. A. announced on October 12.

Production of rubber flooring has been suspended since the beginning of the war. Manufacturers are "frozen" to their January 5, 1942, prices for rubber flooring made of natural rubber. The new rubber flooring will be made of synthetic rubber, and O. P. A. is now studying whether this and other factors justify an increase over the January 5, 1942, levels.

**Rubber Products**—Manufacturers of a variety of industrial items made of rubber including hose, belting, sponge rubber and coated and combined fabrics, must pass on any reduction that has occurred since August 1, 1943, in their costs for synthetic and substitute rubbers, the O. P. A. announced on October 11.

Industrial users and Government agencies buying directly from manufacturers will benefit at once from any reductions made as a result of the new requirement.

**Stainless Steels**—Effective October 16, the O. P. A. suspended price control on stainless steels and an extensive list of other industrial materials, including non-ferrous forgings, tool steel scrap, plastic pipes and fittings used in building, aluminum, moulding, mail chutes, metal awnings and vault doors.

If an inflationary rise should develop in the prices of any of the important items covered in today's action, price control will be immediately restored for the item, O. P. A. said.

**Steel Castings**—Producers of steel castings and railroad specialties were authorized by the O. P. A. on October 5, to deliver or agree to deliver these commodities at prices that may be adjusted upward if increases over present ceilings are subsequently permitted by the price agency.

Explaining this action, O. P. A. said that the Steel Castings Industry Advisory Committee on September 19, 1945, asked the price agency to increase established ceiling prices.

O. P. A. warned that, pending final decision on the request for the increase, producers may not receive nor buyers of steel castings and railroad specialties pay any amount in excess of the established ceilings.

**Wrought Steel Wheels**—Upward revision in manufacturers' ceiling prices for two sizes of wrought steel freight car wheels that are standard for use by American railroads has been provided by Amendment No. 16 to RMPR-136—effective October 16.

The higher prices reflect increased direct labor rates and material costs experienced by manufacturers since October 1941. The increases are approximately 18 per cent.

The new ceilings, f.o.b. Chicago, Ill., or Pittsburgh, Pa., are as follows:

Type	Maximum Price (Before Treatment)
Class 33-C .....	\$21.80 each*
Class 33-D .....	23.60 each*

\* To these prices manufacturers may make the additional charges for extras they had in effect October 1, 1941.

## Equipment and Supplies

### Three Railroads Order Six New Passenger Trains

Judge Wilson McCarthy, trustee of the Denver & Rio Grande Western, has announced that the D. & R. G. W., the Chicago, Burlington & Quincy and the Western Pacific have placed orders with the Edward G. Budd Manufacturing Co. for six stainless steel trains for operation next year between San Francisco, Cal., and Chicago. Each train, to be made up of 10 cars with Diesel power, will be operated by three railroads jointly under the name of "California Zephyr."

The new trains will embody all of the most recent developments in design and construction for the convenience of the traveling public, including cars with the newly developed "vista dome" features which will afford sleeping car and coach passengers full enjoyment of the scenic features of the Colorado Rockies and the 116-mile Feather River Canyon, in California.

The trains will be operated on daily schedules, which will provide for daylight operation on the scenic courses of the route. Judge McCarthy said that when these new trains are placed in operation next year it will mark the first time that Denver has been served by any modern streamline transcontinental train service, and that Salt Lake City will be similarly served for the first time by such a train operating between San Francisco and Chicago. The total investment for the cars and locomotives will be approximately \$10,500,000, divided among the three railroads.

### LOCOMOTIVES

The ST. LOUIS-SAN FRANCISCO has received permission of the federal court to purchase new equipment at a total cost of more than \$7,000,000. The equipment includes three Diesel-powered streamlined trains, three Diesel-electric locomotives, 300 50-ton automobile cars, 300 70-ton hopper cars and 20 steel underframe cabooses.

The CENTRAL OF NEW JERSEY has ordered three 2,000-hp. Diesel-electric passenger locomotives from the Baldwin Locomotive Works and intends to buy several more if they prove satisfactory in commu-

tation service and if the 20 per cent commutation fare increase, which the railroad is now seeking, is granted. The new locomotives will be of the double-end type, that is, having an operator's cab at the front and rear. In a public statement on October 17, the trustees of the railroad declared that a 20 per cent increase in suburban fares "still would leave an annual loss of about \$5,500,000" in the passenger service, compared with the present \$6,000,000 loss, and that the first three Diesels alone "will cost more than the \$500,000 which we would get from the first year of the increased fares we are asking." The trustees also pointed out that despite some financial disadvantages of using Diesels in peak-period commutation service, the Jersey Central is willing to buy them "in the interest of better, faster and cleaner service to the numerous communities we serve, and in the interest of property values in those communities, on the assumption that they are, in return, interested in making it financially possible for us to help them." The requested increase is scheduled to become effective on Dec. 1.

### FREIGHT CARS

The CLINCHFIELD has ordered 20 70-ton covered hopper cars from the American Car & Foundry Co.

The READING has ordered 700 40½-ft. 50-ton box cars and 300 50½-ft. 50-ton box cars from the railroad's own shops. The inquiry for this equipment was reported in the *Railway Age* of September 15.

The NEW YORK, CHICAGO & ST. LOUIS is inquiring for 500 50-ton all steel box cars, 50 70-ton all steel covered hopper cars of 1,958 cu. ft. capacity and 50 70-ton all steel covered hopper cars of 3,020 cu. ft. capacity.

The MISSOURI-KANSAS-TEXAS is planning to construct the following equipment within the near future: 150 40-ton automobile cars with loading devices and 50 50-ton automobile cars with loading devices. As reported in the *Railway Age* of September 15, the road also has purchased 50 70-ton covered hopper cars from the American Car & Foundry Co.

## Supply Trade

**Handy & Harman** of New York have received their sixth Army-Navy "E" award.

**E. W. Webb**, consulting engineer of the Standard Car Truck Company, Chicago, has retired after 43 years of service.

**Joseph F. Clary** has been appointed assistant railroad sales manager of the Edward G. Budd Manufacturing Company. Mr. Clary joined the company in 1933.

**J. J. Smith** has been appointed manager of the Schenectady, N. Y., plant of the American Locomotive Company to succeed W. L. Lentz, whose appointment as vice-president in charge of manufacturing was reported in the *Railway Age* of Octo-





*Richmond, Fredericksburg & Potomac 2-8-4 built by Lima*

# Steam is STILL SUPREME

As steam motive power bore the brunt of the war's transportation burdens, it likewise will be relied upon to meet the major transportation needs of the days ahead.

To keep pace with demands for still faster and more economical freight movement, modern Lima steam locomotives are built to haul heavy freights at sustained passenger train speeds.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO



ber 6. **David T. Coleman** has been appointed assistant manager in charge of personnel at the plant and **Walter C. Rockenstire**, assistant manager in charge of manufacturing.

**Ralph W. Payne** has been appointed southern representative on railway specialties, general castings and machine work, with offices in Washington, D. C., for the **Pittsburgh Steel Foundry Corporation**, Glassport, Pa.

**Bowser, Inc.**, has acquired the industrial temperature cabinet equipment business of the **Kold-Hold Company**, Lansing, Mich., which it will consolidate with its own refrigeration division located in Long Island, N. Y. The units will bear the trade name "Bowser-Kold-Hold."

**William B. Campbell** has been appointed resident manager for **Waterhouse & Co.**, New York. Mr. Campbell was associated with the Pantasote Company for eighteen years prior to his induction into the Army. The Waterhouse organization represents the following companies with the railroads from Maine to Florida: A.



**William B. Campbell**

Theo. Abbott & Co., Philadelphia, Pa.; Blanchard Bro. & Lane, Newark, N. J.; the Collins & Aikman Corp., New York; R. L. Hanson, Inc., New York; the Lehon Company, Chicago; the Safetee Glass Company, Philadelphia; Technical Ply-Woods, Chicago; and the Western Shade Cloth Company, Chicago.

**A. E. Welch**, formerly vice-president and treasurer, has been appointed executive vice-president and treasurer of the **Aireon Manufacturing Corporation** and of its wholly-owned subsidiaries. **Jack Kaufman**, head of the San Francisco, Calif., office, has been appointed a vice-president of Aireon.

The **Bendix Aviation Corporation's** radio division plans to launch an institutional educational program in cooperation with leading railroads and art galleries. John M. Sitton, company art director, has completed a series of water color paintings of railroad landscapes which dramatize the company's work in pioneering the development of high frequency railroad radio communications systems. First showing of the water color series is scheduled for the

Grand Central art gallery from October 17 to 27. The paintings then will be shown nationally in cooperation with some of the leading railroads in major metropolitan galleries. Upon completion of its initial tour the series will be available for showing by college and university galleries throughout the country.

**R. O. Nash**, who has been connected with the **Whitcomb Locomotive Company** since last July, has been promoted to St. Louis district manager in charge of sales and service, with headquarters at St. Louis, Mo. Mr. Nash is a graduate of the University of Minnesota and began his career with the General Electric Company at Erie, Pa., later serving for a brief period as a special apprentice in the mechanical department of the Chicago, Milwaukee, St. Paul & Pacific. In 1927 he was appointed a railway equipment engineer of the Westinghouse Electric & Manufacturing Co., with headquarters at East Pittsburgh, Pa., and three years later he was promoted to resident engineer of the company's South Philadelphia plant, also serving as field engineer. In 1936 Mr. Nash was appointed industrial and transportation sales representative at St. Louis, and in 1940 he was advanced to supervisor of maintenance sales, with the same headquarters. In 1942 he became a special representative of the railroad division of the Socony-Vacuum Oil Company, the position he held until forming his new connection with the Whitcomb organization.

## OBITUARY

**Harold D. Read**, vice-president of the Opinion Research Corporation, Princeton, N. J., and widely known throughout transportation and industry as an authority on the scientific measurement of public opinion, died on October 9 at Johns Hopkins Hospital, Baltimore. He was 43 years of age. Mr. Read joined the Opinion Research Corporation as vice-president shortly after that organization was founded in 1938. In the course of his career, he directed many



**Harold D. Read**

nationally important research projects, among them, the opinion studies for the Association of American Railroads. In the latter years of his life, Mr. Read devoted his professional efforts to one goal: the

establishment of a better reciprocal understanding between the public and industry. Mr. Read was born in Des Moines, Iowa. He received an A. B. degree in 1923 from the University of Iowa, where he majored in journalism and business administration. Before he joined the Opinion Research Corporation he worked in the insurance business, for a Chicago department store, and for Montgomery Ward & Co. Just before going with the Opinion Research Corporation, he had established his own research business in Chicago.

**Harry Guilbert**, director of personnel and safety of the Pullman Company, died in a Chicago hospital on October 10. Mr. Guilbert was born at Liverpool, England, in 1882, and attended Liverpool University. He went to Chicago in 1907 and was employed consecutively by the American Steel Foundries and the American Car & Foundry Co. In 1916 Mr. Guilbert went with the Haskell & Barker Car Co., with headquarters at Michigan City, Ind., and when that company was absorbed by Pullman in 1922, he joined the latter organization, being promoted in August, 1943, to the position he held at the time of his death.

## Financial

**ATCHISON, TOPEKA & SANTA FE.—Entrance to Long Beach, Calif.**—Division 4 of the Interstate Commerce Commission has approved an arrangement whereby this company will acquire trackage rights over 1.96 miles of line owned by the Southern Pacific and 4.29 miles owned by the Pacific Electric, thereby securing a connection from its own tracks in the Wilmington section of Los Angeles to the adjacent waterfront of Long Beach. The rights already enjoyed by the other parties to operate over municipal tracks serving the harbor area are extended to the Santa Fe as a part of the arrangement to provide it with a means of access to the port without building its own line, which the commission recently authorized it to do (*Railway Age* of June 16, page 1071, and August 18, page 315). In order that a physical connection between the lines of the Santa Fe and the Southern Pacific may be established, a 600-ft. track is to be built. In addition, the Santa Fe will build certain yard tracks and depot and office facilities, and the Southern Pacific will provide it with 4,820 ft. of new yard trackage. The cost of all new construction is estimated at \$397,400.

**BALTIMORE & OHIO.—Proposes Equipment Issue.**—The B. & O. has requested bids on a proposed \$3,450,000 issue of series P equipment trust certificates to be dated November 1, 1945, and to mature in fifteen equal annual installments of \$230,000 each. The certificates are being issued to finance not exceeding 80 per cent of the net cost of 1,000 50-ton open-top steel hopper cars ordered from the Bethlehem Steel Company and 350 70-ton steel covered hopper cars ordered from the American Car & Foundry Co.

**CANADIAN NATIONAL.—To Redeem Bond Issues.**—The Canadian National has given



## FRANKLIN CAR CONNECTIONS

*have these 4 Vital Features*

1. Low Frictional Resistance to Joint Movements
2. Minimum Leakage
3. Low Maintenance Cost
4. Dependability of Performance

Franklin sleeve-type design provides ease of movement and tight connections, so that steam pressure drop is extremely low.

An additional valuable feature is the ease with which the low-cost gaskets can be replaced.

These factors result in a steam conduit which can be maintained at minimum expense.



**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

NEW YORK • CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

October 20, 1945

notice that it will redeem all of the outstanding 16-year and 13-year 3 per cent bonds due December 15, 1950, at par and accrued interest on December 15. The 1934 issue amounts to \$20,500,000 and the 1937 issue to \$30,000,000, making a total of \$50,500,000 to be redeemed.

**CHESAPEAKE & OHIO.—May Sell Stock Holdings.**—Robert R. Young, chairman of the Chesapeake & Ohio, said if stockholders fail to approve the proposed unification of the C. & O. group of railroads, the C. & O. will consider divesting itself of its stockholdings in the Nickel Plate, the Pere Marquette and the Wheeling & Lake Erie.

**CHICAGO, ROCK ISLAND & PACIFIC.—Promissory Notes.**—Division 4 of the Interstate Commerce Commission has authorized this road to issue \$5,200,000 of promissory notes in connection with its purchase under conditional sales agreements of 12 Diesel-electric locomotives from the Electro Motive Division of General Motors Corporation, 10 steam locomotives from the American Locomotive Company, and 500 lightweight steel box cars from the Pullman - Standard Car Manufacturing Company. Competitive bids have been received and low bidder (offering a price making the interest rate 1.62 per cent) was the First National Bank of Chicago. (Previous item in *Railway Age* of September 22, page 504.)

**GREEN BAY & WESTERN.—Suit by Debenture Holders.**—Charging that directors of this company had diverted revenues which should have been paid to holders of securities, a suit for \$1,229,248 has been filed against this railroad on behalf of the holders of its "B" debentures. The plaintiffs are headed by Aaron L. Biltchik and Florence W. Brill, who filed the suit in the U. S. Circuit court at Green Bay, Wis. The suit alleges that the railroad officers had diverted to other purposes revenues which it was bound by debenture terms to pay to holders of the securities. It was further charged that during the past 50 years this diversion has aggregated \$1,229,247, or \$175 for each of the 7,000 "B" debentures. The railroad's answer to the suit will be that all revenues not paid out on the debentures were used to provide for current or prospective maintenance, and will assert that such use of funds was discretionary with the road's directors and was "known to and acquiesced in" by the debenture holders. The directors also contend that the statute of limitations prevents the presentation of claims dating back longer than 10 years.

**KANSAS CITY SOUTHERN.—Awards Bonds.**—On October 17, the Kansas City Southern awarded its \$40 million issue of new first mortgage bonds, due 1975, to Kuhn, Loeb & Co., Ladenburg, Thalmann & Co., and Blyth & Co. and associates on a bid of 98¼ for a 4 per cent coupon. It was the only bid received at the competitive sale. The bonds were reoffered at 100. Simultaneously, the railroad awarded \$6 million of notes maturing at the rate of \$300,000 semi-annually to the New York Trust Company and the Bankers Trust Company at 100 for a 2½ per cent coupon.

**MISSOURI-KANSAS-TEXAS.—Awards Equipment Trust Certificates.**—The Missouri-Kansas-Texas has awarded to the Central Hanover Bank & Trust Co., of New York, \$910,000 in equipment trust certificates, second series, 1945. Proceeds from the sale will be used to purchase and construct a considerable number of freight cars as reported elsewhere in this issue.

**PACIFIC ELECTRIC.—Purchase of S. P. Branch.**—This road has applied to the Interstate Commerce Commission for authority to purchase and operate the 15.9-mile segment of the Southern Pacific's Covina branch between Bassett, Calif., and Ganesha Junction.

**PERE MARQUETTE.—Promissory Notes.**—This road has applied to the Interstate Commerce Commission for authority to issue promissory notes in the amount of \$467,800 under conditional sales agreements to be executed in connection with the purchase of two 2,000-hp. Diesel-electric passenger locomotives and five 1,000-hp. Diesel-electric switchers from the Electro Motive Division, General Motors Corporation. The interest rate would be determined by competitive bids, and the notes would mature in 40 quarterly installments beginning February 1, 1946.

**PITTSBURGH & WEST VIRGINIA.—Pledge of Securities.**—Division 4 of the Interstate Commerce Commission has authorized this company to pledge certain first mortgage bonds as collateral for a \$1,000,000 short-term bank loan obtained from the Mellon National Bank of Pittsburgh, Pa.

**SEABOARD AIR LINE.—Equipment Trust Certificates.**—Division 4 of the Interstate Commerce Commission has authorized this road to assume liability for \$3,810,000 of series 00 equipment trust certificates, sold with a 2 per cent rate at 99.05 to Halsey, Stuart & Company, in connection with the acquisition of 14 2,000-hp. Diesel-electric passenger locomotives, 3 stainless steel lightweight baggage-dormitory cars, 9 stainless steel lightweight service-type dining cars, 6 stainless steel lightweight tavern-observation cars, and 12 stainless steel lightweight 52-passenger coaches. This increase in indebtedness will be largely offset, however, the division noted, by the retirement on November 1 of all of the outstanding \$3,456,000 of the road's series II 3 per cent equipment trust certificates.

**SOUTHERN.—Promissory Notes.**—Division 4 of the Interstate Commerce Commission has authorized this company to issue \$1,599,840 of promissory notes in evidence, but not in payment, of the unpaid portion of the cost of 6 4,000-hp. Diesel-electric passenger locomotives ordered from the Electro-Motive Division of General Motors Corporation at \$355,586 each. The notes have been sold at par to the Florida National Bank of Jacksonville, Fla., with a 1.375 per cent annual interest rate. For the 2-year period to and including November, 1945, this company's cash expenditures for Diesel power will aggregate about \$6,845,000, the division's report explained.

#### Average Prices Stocks and Bonds

	Oct. 16	Last week	Last year
Average price of 20 representative railway stocks..	59.73	59.70	42.01

Average price of 20 representative railway bonds.. 98.68 98.47 90.14

#### Dividends Declared

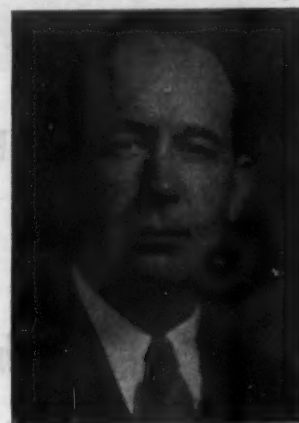
Norfolk & Western.—Adj. preferred, \$1.00, quarterly, payable November 10 to holders of record October 17.  
Western Maryland.—1st preferred, \$7.00, payable November 21 to holders of record November 1.

## Railway Officers

### EXECUTIVE

**Hubert H. Scott**, chief clerk to the vice-president of traffic of the Canadian Pacific at Montreal, Que., has been advanced to assistant to the vice-president of traffic there.

**Armstrong Chinn**, whose promotion to chief executive officer of the Alton, with headquarters at Chicago, was reported in the *Railway Age* of October 13, was born at Dallas, Tex., on September 26, 1894, and was graduated from Virginia Polytechnic Institute in 1916. He entered railway service in the latter year as an instrumentman

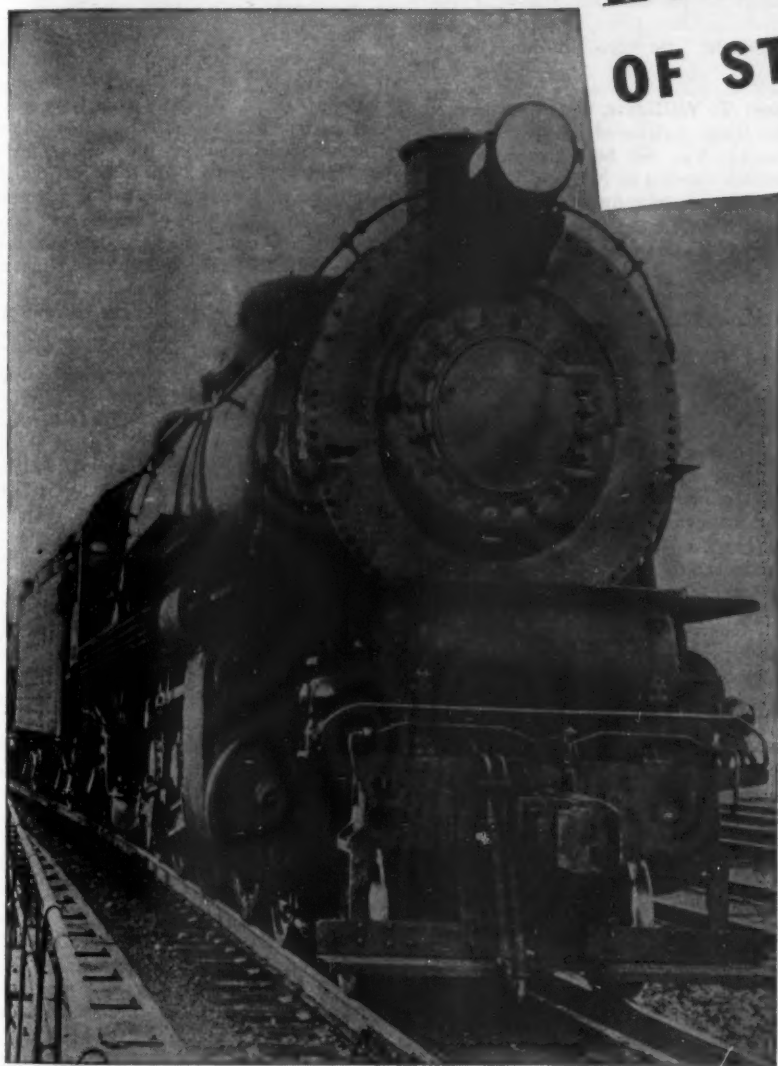


Armstrong Chinn

of the Chicago, Burlington & Quincy on track elevation at Aurora, Ill. During 1918 and 1919 he served as a second lieutenant of field artillery in the American Expeditionary Force in France and then returned to the Burlington, where he was engaged from 1919 to 1921 as an instrumentman on yard construction at La Crosse, Wis., and Centralia, Ill. In 1922, he was promoted to assistant engineer at Aurora, where he remained until 1923 when he became division engineer and roadmaster of the Quincy, Omaha & Kansas City (controlled by the C. B. & Q.), at Kansas City, Mo. Mr. Chinn was transferred back to the Burlington as roadmaster at Kansas City in 1925 and in the following year he was promoted to assistant engineer maintenance of way at Alliance, Neb. Early in 1927 he was promoted to district engineer maintenance of the Wyoming district, with headquarters at the same point, and later in the year he was transferred to the Nebraska district with headquarters at Lincoln, Neb., and also placed in charge of work equipment. On December 1, 1929, Mr. Chinn was ap-



# WHEN EVERY POUND OF STEAM COUNTS

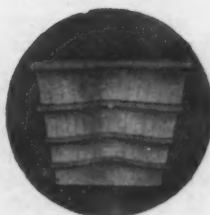


● When you are making every effort to secure maximum efficiency from your steam locomotives, remember the importance of maintaining a *complete* brick arch in the firebox.

For 36 years Security Sectional Arches have been saving fuel on all types of locomotives, and the harder a locomotive is worked the greater the proportionate fuel saving.

The cost of maintaining a complete arch is but a fraction of that of the coal conserved.

**HARBISON-WALKER  
REFRACTORIES CO.**  
*Refractories Specialists*



**AMERICAN ARCH CO. INC.**  
60 East 42nd Street, New York 17, N. Y.  
*Locomotive Combustion Specialists*

pointed chief engineer of the Alton, with headquarters at Chicago, and in March, 1943, he was promoted to general manager, the position he held at the time of his new appointment.

**A. F. Tidabock**, president of the Northampton & Bath and the Hannibal Connecting at Pittsburgh, Pa., has retired after 42 years of continuous service with both lines. **Daniel J. Smith** has been elected to succeed him as president with the same headquarters.

## FINANCIAL, LEGAL AND ACCOUNTING

**George F. Dames**, attorney of the Chicago, St. Paul, Minneapolis & Omaha, and assistant attorney of the Chicago & North Western, with headquarters at St. Paul, Minn., has retired after 46 years of service with both roads.

## OPERATING

**E. L. Mettlen** has been appointed manager of the Visalia Electric, with headquarters at Exeter, Cal., succeeding **R. T. Jackson**, deceased.

**George J. Mulick**, formerly general superintendent of the Eastern district of the Union Pacific, who has been in the armed forces since September, 1943, has returned to the U. P., as superintendent of the Kansas division, with headquarters at Kansas City, Mo. He succeeds **J. F. Lewis**, who has been transferred to the Colorado division, with headquarters at Denver, Colo.

**Cedric S. Hill**, whose appointment as superintendent stations and motor service of the New York Central at New York was reported in the *Railway Age* of October 6, was born in Chicago on October 8, 1898. He attended Sheffield Scientific School, Yale University, until the outbreak of World War I. Mr. Hill entered railroad-ing as rodman in the service of the New



Cedric S. Hill

York Central, engineering department, in 1918. He became assistant engineer in 1924, shifting to the freight transportation department in 1927 as traveling car agent. In 1936 he was elevated to supervisor, freight transportation, and in 1940 to assistant manager, freight transportation. His

advancement to superintendent, stations and motor service, became effective on October 1.

**V. J. Crossley**, master mechanic of the Bamberger Railroad, has been promoted to trainmaster, a newly-created position, with headquarters at Salt Lake City, Utah.

**F. R. Jenkins**, acting superintendent of the Colorado division of the Union Pacific, has been appointed assistant division superintendent, with headquarters at Denver, Colo.

**A. W. Harris**, conductor and relieving yardmaster for the Canadian Pacific, Farnham division, has been named assistant superintendent, Laurentian division, Quebec district.

**Ernest T. Williams**, superintendent of the Blue Ridge division of Railway Express at Roanoke, Va., has been transferred to the Pamlico division at Norfolk, Va. **Vernon W. Shives**, superintendent at Norfolk, has been transferred to the Blue Ridge division, and **George I. Snyder**, superintendent of organization at Charlotte, N. C., has been appointed superintendent of the newly-created Norfolk City division.

**Daniel E. Ferner**, assistant superintendent of transportation of the Chicago, South Shore & South Bend at Michigan City, Ind., has been promoted to superintendent of transportation, with the same headquarters, succeeding **Alva B. Parsons**, who has retired after nearly 40 years of service. **Robert C. Reppert**, train dispatcher, has been advanced to trainmaster, with headquarters as before at South Bend, Ind.

**T. G. Griffin**, freight trainmaster of the Maryland division of the Pennsylvania, has been promoted to trainmaster of the Chicago Terminal division, with headquarters at Chicago, succeeding **E. W. Davis**, who has been transferred to the Toledo division, with headquarters at Toledo, Ohio. Mr. Davis replaces **W. P. Primm**, who has been appointed road foreman of engines at Toledo. **A. L. Hunt**, who has returned from military service, has been appointed trainmaster of the Columbus division, with headquarters at Columbus, Ohio.

**O. W. Duff**, superintendent, Belleville division, of the Canadian National at Belleville, Ont., has retired and **W. G. Doherty**, superintendent of terminals, Black Rock, N. Y., has been appointed to succeed him. **J. R. Carr**, assistant superintendent at Allendale, Ont., succeeds Mr. Doherty; **A. E. McCullough**, assistant superintendent at Capreol, Ont., has been transferred to Allendale; **A. L. Enborg**, assistant superintendent at Hornepayne, Ont., has been transferred to Capreol and **R. B. Hardy**, trainmaster at Brantford, Ont., has been advanced to assistant superintendent at Hornepayne, succeeding Mr. Enborg.

**A. C. McCarthy**, whose promotion to superintendent of transportation of the Grand Trunk Western, with headquarters at Detroit, Mich., was reported in the *Railway Age* of October 6, was born at Detroit, on December 15, 1897, and entered the service of the Grand Trunk Western on

November 1, 1918, as a demurrage inspector. On April 30, 1919, he was promoted to traveling inspector and on April 16, 1923, he was advanced to demurrage supervisor. He was further advanced to district supervisor of car service on July 1, 1927, and in September, 1939, he was promoted to superintendent of car service, the position he held at the time of his new appointment.

**Perry Rumsey**, whose retirement as superintendent stations and transfers of the New York Central at New York was announced in the October 6 issue of *Railway Age*, was born March 22, 1880, in Warwick, N. Y., and entered railroading on April 4, 1902, as a brakeman on the River division of the New York Central. Seven days later he was promoted to freight clerk at Kingston, N. Y., and in 1909 became chief clerk there. He was named agent at Poughkeepsie, N. Y., in 1913, after which he held various posts on the Hudson division from 1915 until 1926 when, as trainmaster, he was transferred to the Electric division. In 1929, Mr. Rumsey was elevated to assistant superintendent of the West Side line. His appointment to superintendent stations and transfers, the position from which he retired on October 1, 1945, came in March, 1934.

**Erwin P. Glidden**, whose retirement as superintendent of the Chicago & Eastern Illinois, with headquarters at Danville, Ill., was reported in the *Railway Age* of October 6, was born in Greene County, Ind., on June 15, 1872, and entered railway service on October 17, 1890, as a clerk of the Evansville & Terre Haute at Vincennes, Ind. He served in various other capacities, including telegraph operator and dispatcher until 1909 when he went with the C. & E. I., as chief clerk to the general superintendent, with headquarters at Evansville, Ind., and later at Danville. In August, 1912, Mr. Glidden was advanced to chief dispatcher at Evansville, and one year later he was promoted to superintendent of the Evansville division, with the same headquarters. On August 1, 1927, he was transferred to the Illinois division, with headquarters at Salem, Ill., and on May 15, 1934, he was advanced to the position he held at the time of his retirement.

**Colonel Otto F. Ohlson**, general manager of the government-owned and operated Alaska Railroad, has resigned, effective December 31, 1945, concluding a 59-year railroad career. **Colonel John P. Johnson**, United States Army Transportation Corps, has been appointed to succeed Col. Ohlson, as was announced in the *Railway Age* of October 13. Col. Ohlson was born in Sweden in 1870, and began his railroad career there. After short periods of railway work in South America and India, he came to the United States in 1893 and joined the Pennsylvania. In 1900 he entered the service of the Northern Pacific as a train dispatcher, and, except for a period during World War I when he was in charge of army railroads in France under General Atterbury, remained with that line until his resignation in 1928, at which time he was superintendent of the Lake Superior division at Duluth, Mich. Although scheduled to retire two years ago, Col. Ohlson

# HOT WATER

to the BOILER *at all times*

When the Elesco live steam valve is applied to a locomotive

equipped with Elesco feedwater heater, the feedwater is auto-

matically pre-heated with live steam, when exhaust steam is not

available. This insures the delivery of hot water to the boiler

at all times, with a consequent improvement in efficiency.



A-1683

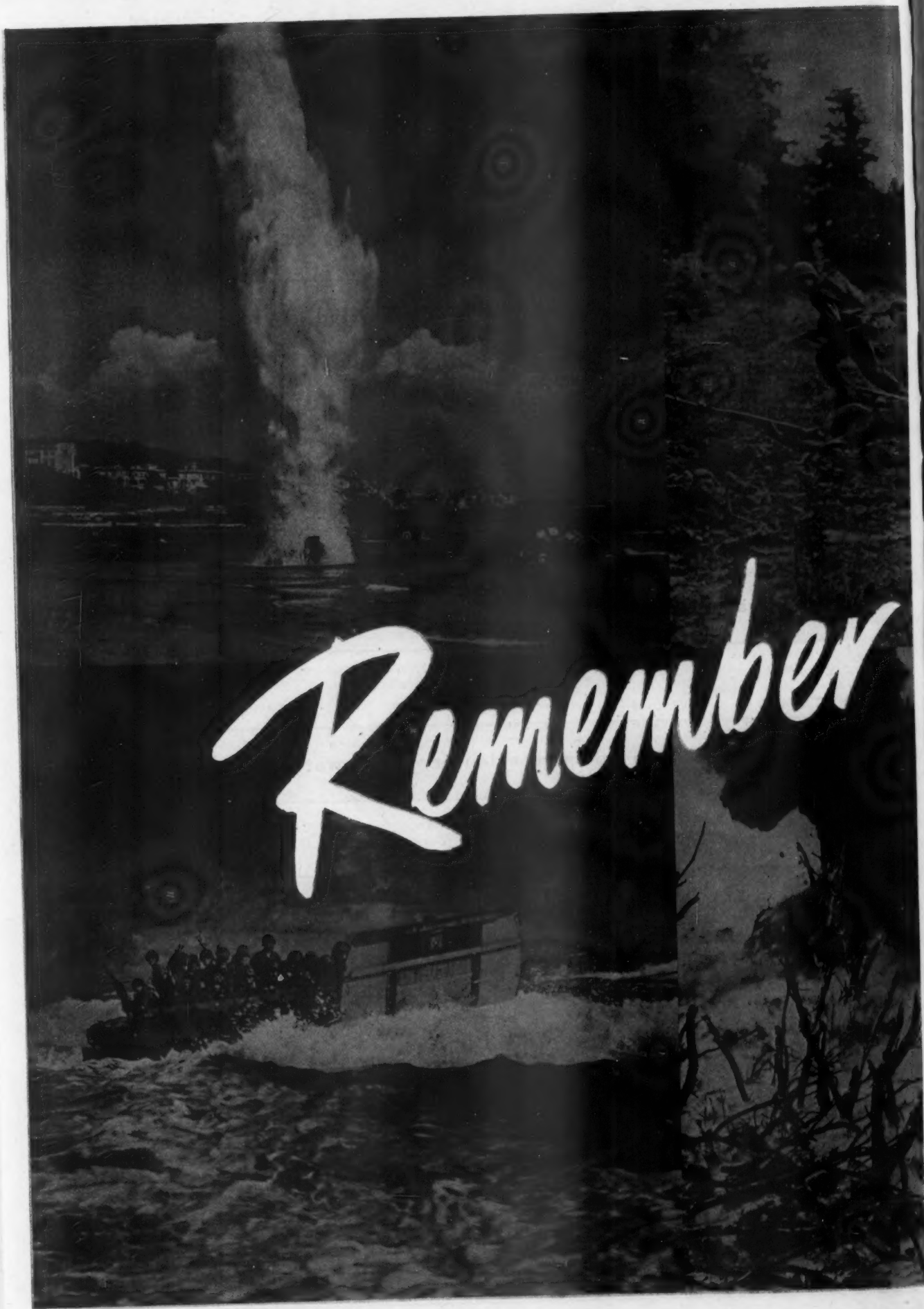
SUPERHEATERS • FEEDWATER HEATERS  
AMERICAN THROTTLES • STEAM DRYERS  
EXHAUST STEAM INJECTORS • PYROMETERS

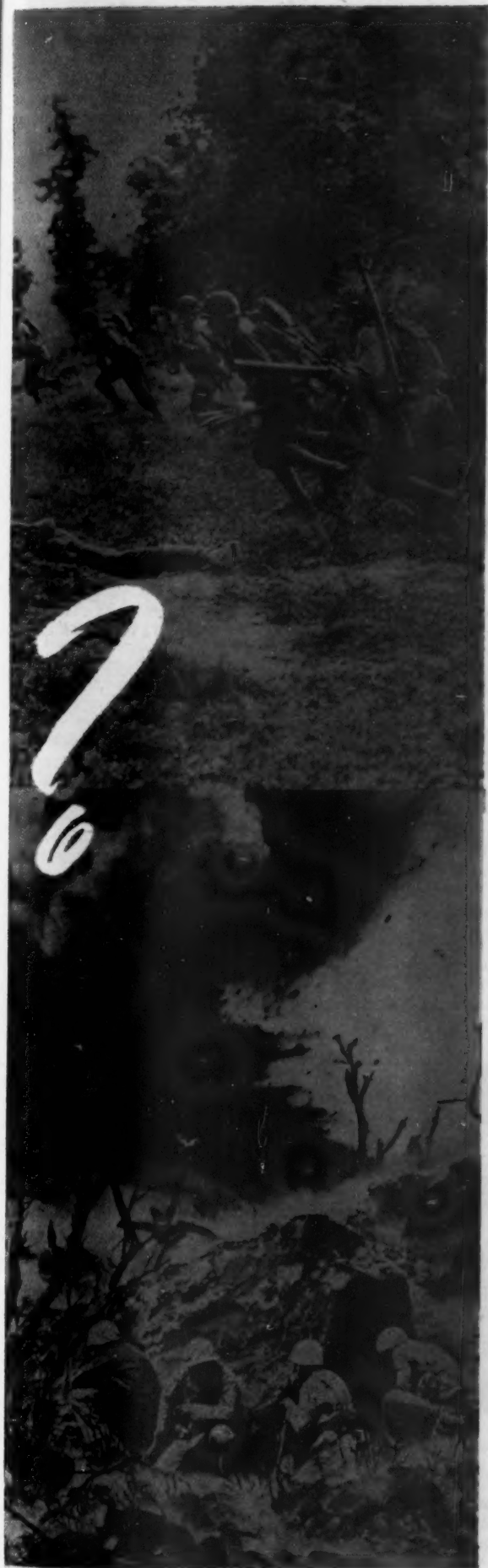
THE  
**SUPERHEATER**  
C O M P A N Y

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60 East 42nd Street, NEW YORK  
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THE SUPERHEATER COMPANY, LTD.







**K**asserine Pass, Anzio, Saint-Lô, the Remagen Bridge...  
Guadalcanal, Attu, Bougainville, Tarawa, Iwo,  
Okinawa...

*Remember?*

Already, the names grow a little hazy to some of us.  
But men died there, and more were hurt, and some man-  
aged to come through.

They had a tough job to do...and they did it. *You*  
remember.

There's something called a debt we owe...to several  
million men who finished the biggest job this country  
ever tackled...

A debt to men who fought and were wounded—and  
still need the best medical attention in the world. To men  
who are scattered all over the globe—and still need re-  
turn-trip tickets. To men who are coming out of uniform  
—and need a hand to get started again.

You can help pay our debt to these men—by buying  
Victory Bonds. Bonds—not to give them weapons this  
time, but to give them back their world. That's the job  
*you're* asked to finish—by buying extra bonds for the  
last time.

Kasserine Pass... Anzio... Okinawa...

*How good is your memory?*

# Victory ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ Loan

*They Finished Their Job  
Let's Finish Ours!*

CONTRIBUTED BY  
AMERICAN LOCOMOTIVE COMPANY

remained on the job for the war period at the request of Secretary Ickes.

Col. Johnson, who is 43 years old, entered railroading in the service of the Atchison, Topeka, and Santa Fe at Topeka, Kan., in 1917 as an engineering apprentice, and became a journeyman after a four-year course in the industrial school sponsored by the railroad. From 1923 until 1941, when he was called into active Army service, he served the Santa Fe in various supervisory capacities. Col. Johnson served in the army on both the Iraq and Iran state railroads, and later was sent to India to organize the transportation program there, transferring to Alaska in 1944 to set up a program for the rehabilitation of construction equipment in that area, then subsequently heading railroad operations for General MacArthur in the Philippines. He plans to go to Alaska within a few weeks to begin familiarizing himself with the details of operation of the Alaska Railroad.

## TRAFFIC

**Charles H. Pumphrey**, whose retirement as freight traffic manager of the Baltimore & Ohio, with headquarters at Cincinnati, Ohio, was reported in the *Railway*



**Charles H. Pumphrey**

*Age* of October 6, was born at Baltimore, Md., on May 25, 1884, and received his higher education at Baltimore City College and Johns Hopkins University. He entered railway service on July 1, 1901, in the freight department of the B. & O., at Baltimore, holding various minor positions until 1917 when he was promoted to senior clerk to the vice-president and to the federal manager, with the same headquarters. During 1918 and 1919 Mr. Pumphrey served with the U. S. Army in France as lieutenant and captain, returning to the B. & O., in the latter year as a member of the staff of the traffic manager. In 1920 he was advanced to district freight agent at Philadelphia, Pa., and one year later to division freight agent, with headquarters at Youngstown, Ohio, being transferred to New York in 1922. In 1924 Mr. Pumphrey became assistant general freight agent at Louisville, Ky., and in 1926 he was promoted to assistant to the vice-president with headquarters at Baltimore. In 1930 he was promoted to freight traffic manager at Pittsburgh, Pa., being transferred to Cincinnati in 1933.

**D. H. Beck**, general eastern passenger agent of the Southern at New York, has been promoted to general passenger agent with the same headquarters. Mr. Beck was born at Whiteland, Pa., on June 10, 1896. After service in various clerical positions and as a telegrapher for the Pennsylvania,



**D. H. Beck**

he joined the Southern in 1925 as a chief clerk in the office of the district passenger agent at Philadelphia, Pa., transferring in 1926 to New York as chief clerk to the general eastern passenger agent. Mr. Beck returned to Philadelphia in 1931 as a traveling passenger agent, later serving as city passenger agent. He was promoted to assistant city ticket agent at Washington, D. C., in 1934, traveling passenger agent at New York, 1936, and district passenger agent at New York in 1939, becoming New England passenger agent at Boston, Mass., the same year. He was advanced to general eastern passenger agent at New York in July, 1941, the position he relinquishes to become general passenger agent.

**George K. Reeder**, whose promotion to general freight agent of the Missouri-Kansas-Texas, with headquarters at Dallas, Tex., was reported in the *Railway Age* of



**George K. Reeder**

September 22, was born at Corpus Christi, Tex., on May 7, 1899, and entered railway service in January, 1920, with the Southern Pacific as yard clerk, subsequently serving as warehouse clerk, billing clerk, cashier,

chief clerk and local agent at various points on the road. In 1922 he went with the M-K-T as traveling freight agent, with headquarters at Detroit, Mich. Four years later he was advanced to general agent at New Orleans, La., later being transferred to Salt Lake City, Utah, and Winston Salem, N. C. In 1935 Mr. Reeder was promoted to assistant general freight agent at Dallas, and in 1943 he received a leave of absence to serve with the U. S. Army, returning to the M-K-T on September 15, 1945, at which time he was advanced to the position of general freight agent.

**Colonel Charles C. Mitchell**, formerly commercial agent of the Erie at St. Louis, Mo., who has been serving with the Transportation Corps of the U. S. Army in the Southwest Pacific theater of operations, has returned to the Erie and has been promoted to general agent, with headquarters at Peoria, Ill. Col. Mitchell succeeds **John W. Cloud**, whose transfer to Minneapolis, Minn., was reported in the *Railway Age* of September 22.

**William L. Taylor**, whose appointment to assistant freight traffic manager of the Southern at Washington, D. C., was announced in the October 13 issue of *Railway*



Albee Studio

**William L. Taylor**

*Age*, was born on September 8, 1902, in Alexandria, Va. He attended Strayer Business College in Washington and entered the service of the Southern there in April, 1918. Advancing through various clerical posts in the Southern's freight traffic department, he became chief clerk in 1936, then commerce agent in 1938. Mr. Taylor was named assistant to freight traffic manager in October, 1941, the position he held until his recent promotion. For the past two years Mr. Taylor has also been engaged in special work for the Railroad Committee for the Study of Transportation, an organization sponsored by the Association of American Railroads. This assignment, involving the preparation of transportation and economic studies of various commodities, was completed coincident with his appointment as assistant freight traffic manager.

**John T. McEntee**, whose appointment as assistant freight traffic manager of the Erie at New York was reported in the Sep-



tember 22 issue of *Railway Age*, was born in Ogdensburg, N. J., on April 1, 1890. He entered railroading in 1906 with the Erie as a clerk at Newfoundland, N. J., but soon switched to the New York, Susquehanna & Western, advancing to be station supervisor at Jersey City, N. J., in



John T. McEntee

1917. In 1921, he became station supervisor for the New Jersey & New York and the Erie. Continuing with the Erie, he was appointed superintendent of stations and transfers for the New York region at Jersey City in 1926, becoming station supervisor there in 1927. Later that year he held positions as agent in New York and Jersey City, becoming division freight agent at Paterson, N. J., in December, 1927. He was named city freight agent, general eastern freight office, New York, in December, 1928, then assistant general eastern freight agent there in October, 1929. Mr. McEntee was appointed assistant general freight agent at Buffalo, N. Y., in September, 1936, and elevated to general eastern freight agent at New York in July, 1942. His promotion to assistant freight traffic manager came on September 16, 1945.

**G. H. Sloope**, route agent for Railway Express at Richmond, Va., has been appointed general agent there, succeeding **J. E. Carter**, whose promotion was noted in the October 13 issue of *Railway Age*.

**Thomas Gilpin**, chief percentage clerk for the Erie at New York, has been advanced to chief of division bureau there, succeeding **J. H. Sisco**, whose promotion was announced in the October 6 issue of *Railway Age*.

**D. B. Bishop**, division freight agent for the Canadian National at St. John, N. B., has been transferred to Moncton, N. B. **G. T. Stone**, division freight and district passenger agent at Charlottetown, P. E. I., succeeds him as division freight agent at St. John. **A. A. Leaman**, chief clerk to the general freight agent at Moncton, has been appointed division freight and district passenger agent at Charlottetown, succeeding Mr. Stone.

**Joshua E. Steele**, division freight agent of the Baltimore & Ohio at Newark, Ohio, has been advanced to assistant general

freight agent, with headquarters at Cincinnati, Ohio, succeeding **Lloyd W. Baker**, whose promotion to general freight agent at Baltimore, Md., was reported in the *Railway Age* of September 8. **Loren S. Pritchett**, district freight agent, with headquarters at Philadelphia, Pa., has been promoted to division freight agent at Newark, relieving Mr. Steele.

**Anton W. Foellger**, general passenger agent of the New York Central at Chicago, has been promoted to assistant passenger traffic manager, with the same headquarters, a newly-created position. **John H. Colley**, assistant to the passenger traffic manager, has been advanced to assistant passenger traffic manager, with headquarters as before at Chicago, also a newly-created position. **Howard C. Carson**, assistant general passenger agent at Chicago, has been promoted to general passenger agent, replacing Mr. Foellger, and **Sidney W. Bone**, division passenger agent, has been advanced to assistant general passenger agent, relieving Mr. Carson. **Edward R. Hutton**, city ticket agent at Chicago, has been promoted to division passenger agent, succeeding Mr. Bone.

**George R. Wheeler**, general freight agent of the Erie at New York, whose retirement was announced in the September 22 issue of *Railway Age*, was born in Tioga, Pa., on December 27, 1873. He entered railroading in August, 1890, with the Erie at Tioga, and has served that road for 55 years. From his original position as helper he was advanced to agent in 1891 at Landrus, Pa., then transferred to Tioga Junction, Pa., in 1892, to Hoytville, Pa., and Morris, in 1899, and to Edgewater, N. J., in 1905. Mr. Wheeler was elevated to division freight agent at New York in 1909, and became milk freight agent at Jersey City, N. J., in 1914. He was promoted to general eastern freight agent at New York in 1920, and assistant freight traffic manager there in 1929. On August 1, 1930, he was advanced to general freight agent, the position from which he retired on September 15, 1945.

**James K. Williams**, general freight agent, sales and service, of the Louisville & Nashville at Louisville, Ky., has been promoted to freight traffic manager, sales and service, with the same headquarters, succeeding **E. A. deFuniak**, whose death on September 30 was reported in the *Railway Age* of October 13. **Edward J. Cotton**, senior assistant general freight agent, has been advanced to general freight agent, sales and service, with headquarters as before at Louisville, replacing Mr. Williams, and **Philo H. Goodwyn**, assistant to the freight traffic manager at Louisville, has been promoted to senior assistant general freight agent, relieving Mr. Cotton. **Fred A. Weber**, assistant to the freight traffic manager, has been appointed assistant general freight agent at Louisville, succeeding **J. S. Thompson**, who in turn has been advanced to assistant to the freight traffic manager, replacing Mr. Goodwyn. **George H. Uhl** has been appointed assistant to the freight traffic manager at Louisville, relieving Mr. Weber.

## ENGINEERING & SIGNALING

**C. S. Sanderson**, whose appointment as principal assistant engineer of the Atlantic Coast Line at Wilmington, N. C., was announced in the September 29 issue of *Railway Age*, was born on October 8, 1901, in Houlika, Miss., and was graduated from



C. S. Sanderson

Mississippi State College in civil engineering in 1923. He entered the service of the Atlantic Coast Line as rodman the same year. Mr. Sanderson was appointed instrumentman in 1924 and resident engineer in 1925, then advanced to division engineer at Rocky Mount, N. C., in 1930. In 1933 he transferred to the Charleston & Western Carolina as roadmaster at Augusta, Ga., from which he was promoted to assistant superintendent of the same line in 1939. He entered the United States Army in 1942 as a lieutenant colonel, serving as staff officer in charge of the engineering section of the A. C. L.-sponsored 703rd Railway Grand Division Headquarters, spending 34 months in the European theatre with that unit on reconstruction and maintenance of military railways in Africa, Italy, France, and Germany. Mr. Sanderson was released from his army assignment on September 17, 1945, and his present appointment became effective October 1, 1945.

## MECHANICAL

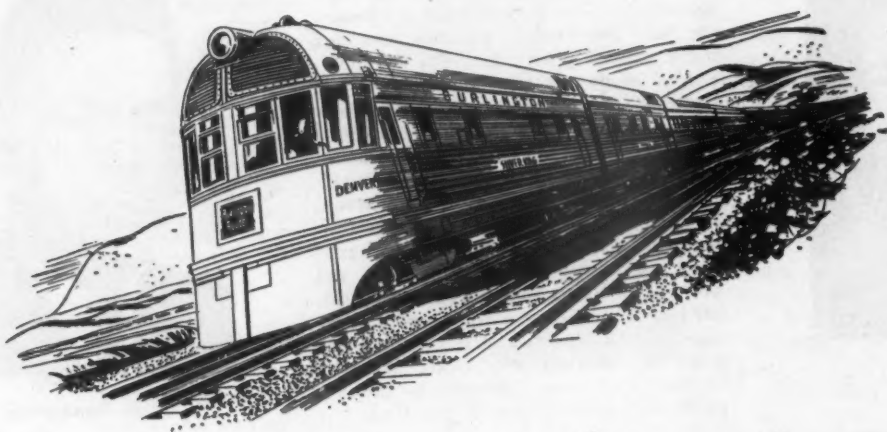
**W. C. Fleck** has been appointed assistant master mechanic of the Ft. Wayne division of the Pennsylvania, with headquarters at Ft. Wayne, Ind.

**Richard F. Benton** has been appointed master mechanic of the Bamberger Railroad, with headquarters at North Salt Lake City, Utah, succeeding **V. J. Crossley**, whose appointment as trainmaster is reported elsewhere in these columns.

**Thomas H. Evans**, shop superintendent of the Missouri-Kansas-Texas at Waco, Tex., has been promoted to chief mechanical officer, with headquarters at Parsons, Kan. **John B. Reese**, general shop foreman at Waco, has been advanced to shop superintendent, replacing Mr. Evans.

**L. M. Winslade**, locomotive foreman for the Canadian Pacific at Lambton, Ont., has been appointed division master mechanic Montreal Terminals division at Montreal,

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Que., succeeding **P. J. Johnson**, whose promotion was announced in the October 6 issue of *Railway Age*.

**William H. Gimson**, whose promotion to assistant superintendent of motive power of the St. Louis-San Francisco, with headquarters at Springfield, Mo., was reported in the *Railway Age* of October 6, was born at Memphis, Tenn., on September 13, 1887, and entered railway service with the Frisco as a machinist apprentice in September, 1904, at Memphis. Later he served as enginehouse foreman at the same point and on March 1, 1917, he was appointed division foreman, with headquarters at Harvard, Ark. In the same year Mr. Gimson was advanced to general foreman, with headquarters at Monett, Mo., and on August 15, 1929, he was promoted to shop superintendent at Tulsa, Okla. On January 1, 1941, he was further promoted to master mechanic, with the same headquarters, the position he held at the time of his new appointment.

**J. D. Loftis**, whose appointment as general superintendent motive power of the Atlantic Coast Line at Wilmington, N. C., was announced in the October 6 issue of *Railway Age*, was educated at Utah University and Leland Stanford University. He entered railroading in 1928 with the



**J. D. Loftis**

Denver & Rio Grande Western and remained with that railroad until August, 1942, at which time he joined the Office of Defense Transportation. He served with the O. D. T. as mechanical assistant, assistant to the director, division of railway transport, and as traffic flow chief, until December, 1943, when he joined the Baldwin Locomotive Works at Cleveland, O. In August, 1944, he became eastern district manager in charge of a new office opened by that company in Philadelphia, Pa. Notice of his recent change of position came on September 29, 1945.

**L. A. Porter**, assistant general superintendent motive power of the Seaboard Air Line, has been appointed to the newly-created position of chief mechanical officer with headquarters as before at Norfolk, Va. **S. D. Dekle**, assistant general superintendent motive power of the Seaboard Air Line, has been appointed assistant chief mechanical officer with system jurisdiction, headquarters as before at Jacksonville, Fla. **Henry W. Jarrett**, master mechanic at

Savannah, Ga., has been named assistant to chief mechanical officer, Norfolk, Va.

Mr. Porter, who was born October 17, 1899, in Culpeper County, Va., was graduated from Virginia Polytechnic Institute in 1910, and attended the University of Edinburgh in 1919. He entered railway service



**L. A. Porter**

in August, 1910, as a clerk and draftsman with the Seaboard Air Line, then worked successively for the United States Steel Corporation and the Richmond Cedar Works from 1912 until 1916, when he rejoined the Seaboard Air Line as a draftsman. He was a captain in the United States Army serving with the American Expeditionary Forces during World War I, then was employed at the U. S. Navy Yard, Norfolk, Va., from 1919 until 1922, when he again returned to the Seaboard Air Line as a draftsman. In 1926 he became chief draftsman and in 1936, mechanical engineer. In 1942, Mr. Porter was elevated to assistant to the general superintendent motive power and in 1944 to assistant general superintendent motive power, the position he leaves to become chief mechanical officer.

## PURCHASES AND STORES

In the October 6 issue of *Railway Age* it was inadvertently reported that **T. E. Halpin**, general agent of the Rutland at Detroit, Mich., had been promoted to assistant to purchasing agent. Prior to this promotion, Mr. Halpin had been serving, not as general agent, but as chief clerk. There has been no change in the office of the general agent at Detroit.

## OBITUARY

**Robert C. Arnoll**, secretary, treasurer for trustees, and purchasing agent of the Rutland, whose death was reported in the October 13 issue of *Railway Age*, was born in Bristol, England, on March 8, 1882. He entered railway service in 1898 as a stenographer and clerk for the Rutland, spending his entire career with that road. In 1909 he was promoted to chief clerk to vice-president and general manager, and in 1924 to purchasing agent. In 1927 he was named assistant to vice-president and general manager in addition to his duties as purchasing agent. In June, 1941, he became treasurer for the receiver, and subsequently secretary for the trustees, still fill-

ing the post of purchasing agent. Mr. Arnoll was maintaining these positions at the time of his death on September 3, 1945.

**Albert J. Krueger**, general superintendent car department of the New York, Chicago & St. Louis at Cleveland, Ohio, died suddenly on October 13. Mr. Krueger was born in Toledo, Ohio, on June 26, 1890. He began his railroad career in 1912, serving successively in the employ of the Lake Shore & Michigan Southern (now New York Central) as clerk and car repairman at Air Line Junction, Ohio; inspector at Erie, Pa., and piecework inspector at Air Line Junction. In 1913 he became contract inspector for the Michigan Central at Chicago Heights, Ill., and in 1914 assistant general shop inspector of the Lake Shore & Michigan Southern at Collinwood, Ohio, and Englewood, Ill. He entered the employ of the New York, Chicago & St. Louis in 1916 as general shop inspector at Cleveland, and in 1921 was appointed master car builder with headquarters at Cleveland. From 1933 to 1937 he was general car foreman at Conneaut, Ohio. In the latter year he became inspector car department of the Chesapeake & Ohio, Pere Marquette, and the New York, Chicago & St. Louis at Cleveland. He was appointed superintendent of the car department of the New

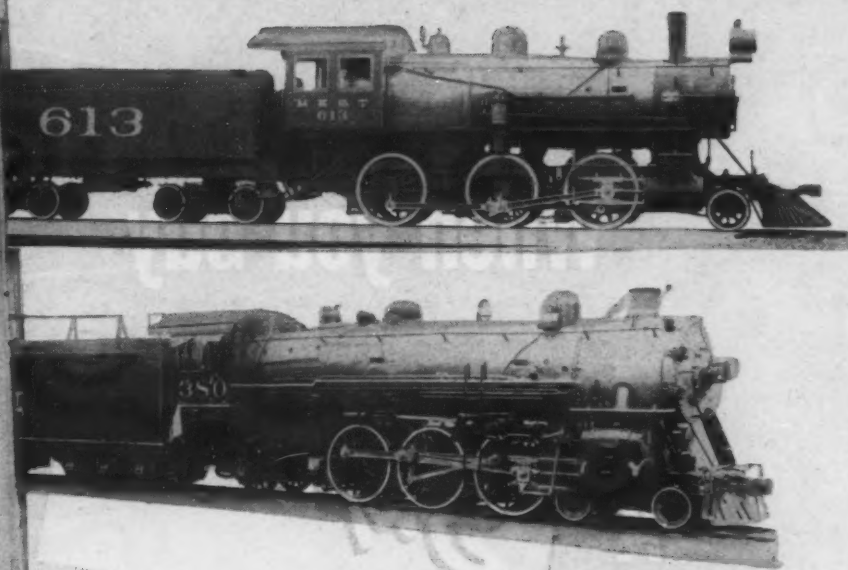


**Highbee Cheshire**

**Albert J. Krueger**

York, Chicago & St. Louis at Cleveland in January, 1938, and general superintendent car department in 1943. Mr. Krueger had been active in the work of the Car Department Officers' Association for many years. In 1941 he was elected president of the association. In 1942, he again took over and had since continued the duties of president, acting for F. E. Cheshire who had entered military service.

**Thomas R. Dickinson**, purchasing agent of the Bessemer & Lake Erie at Pittsburgh, Pa., died there on September 30. Mr. Dickinson was born on September 12, 1883, in Greenville, Pa., and entered railway service there in October, 1902, with the Bessemer & Lake Erie, holding positions in various departments until his appointment as chief clerk to the purchasing agent at Pittsburgh in 1929. Subsequently advancing to purchasing agent of the Bessemer & Lake Erie, the Union, the Youngstown & Northern, and the Etna & Montrose, Mr. Dickinson was serving in these capacities at the time of his death.



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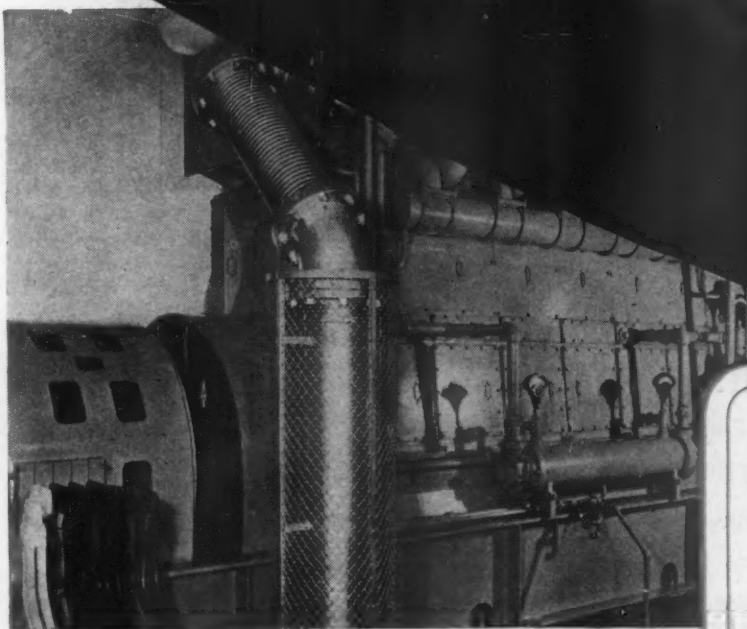
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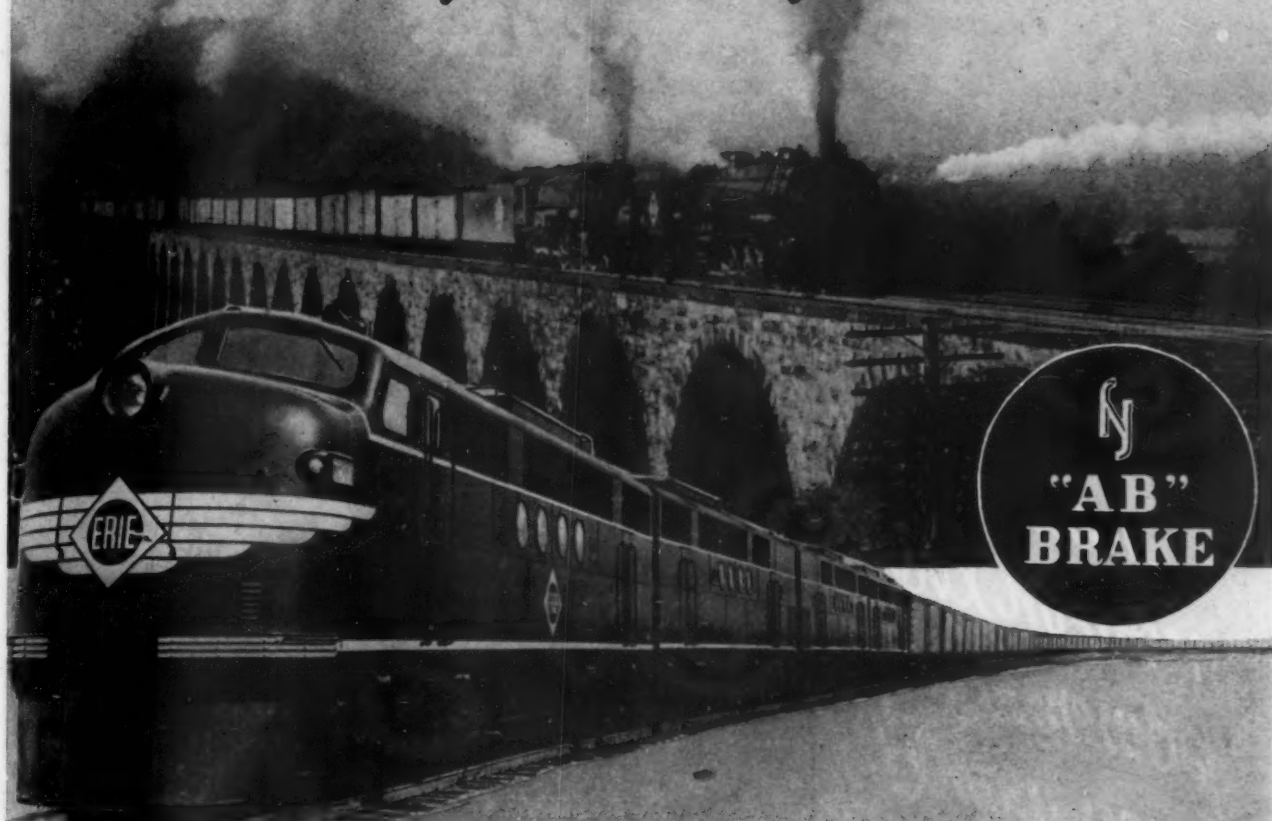
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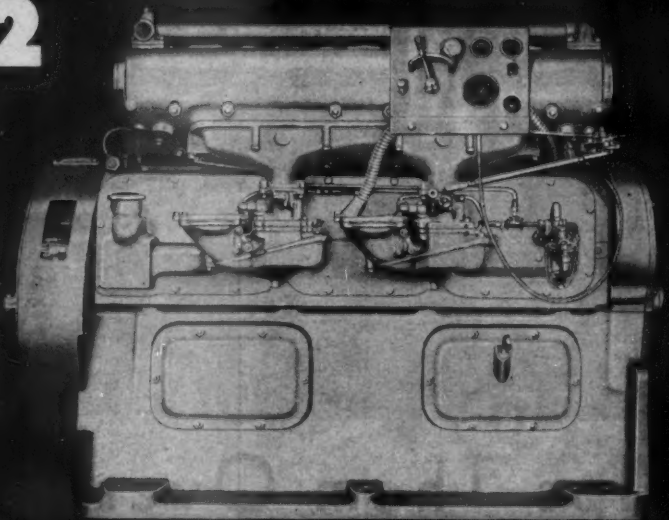
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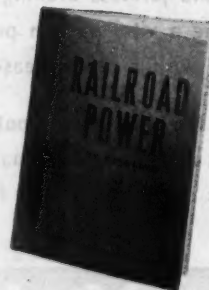


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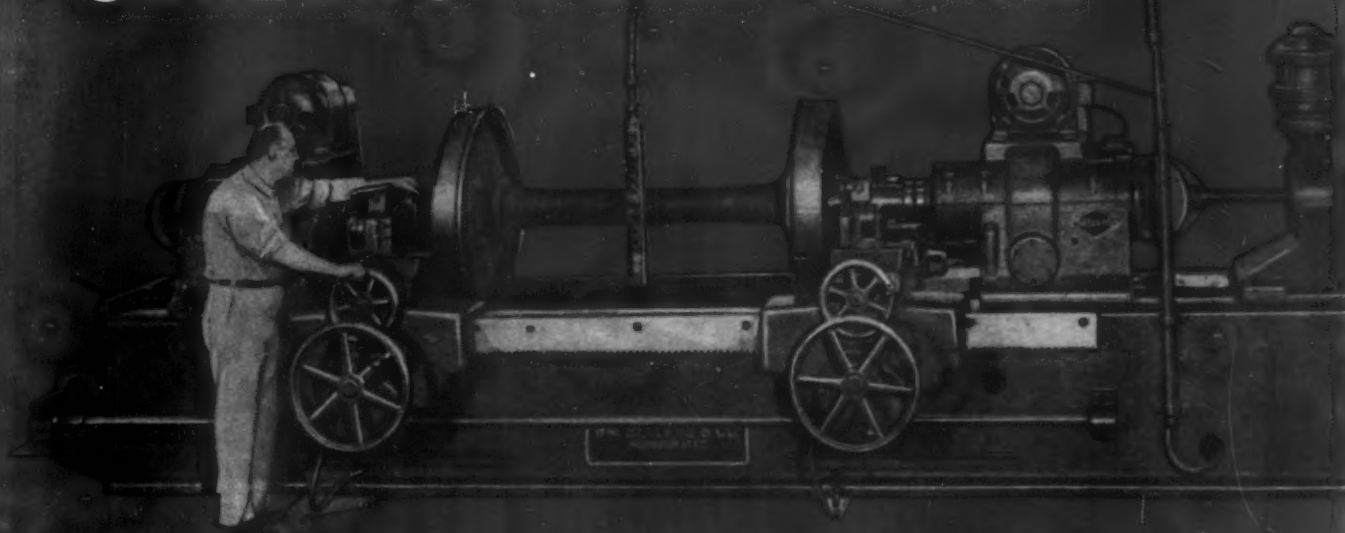
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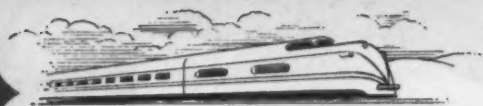
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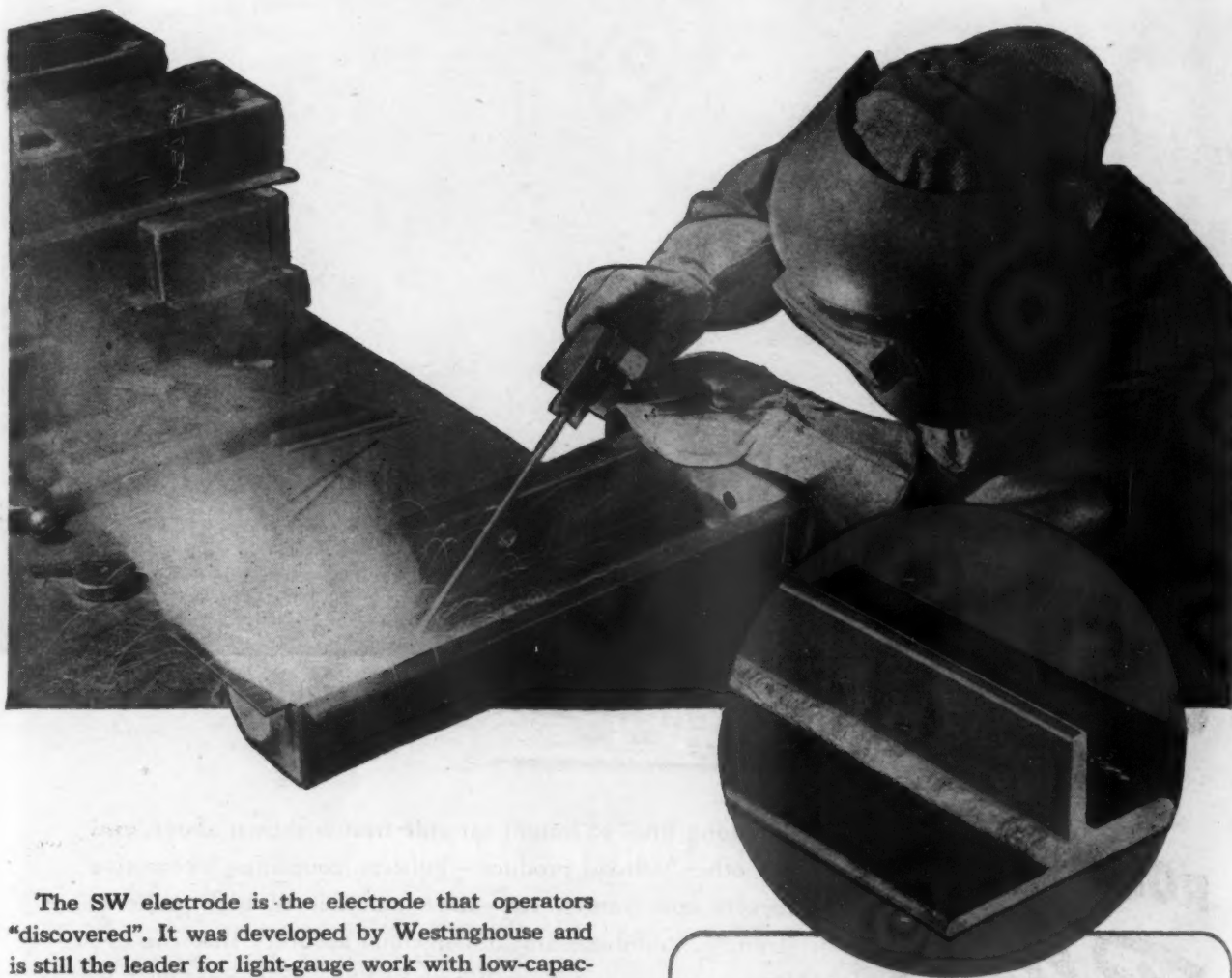
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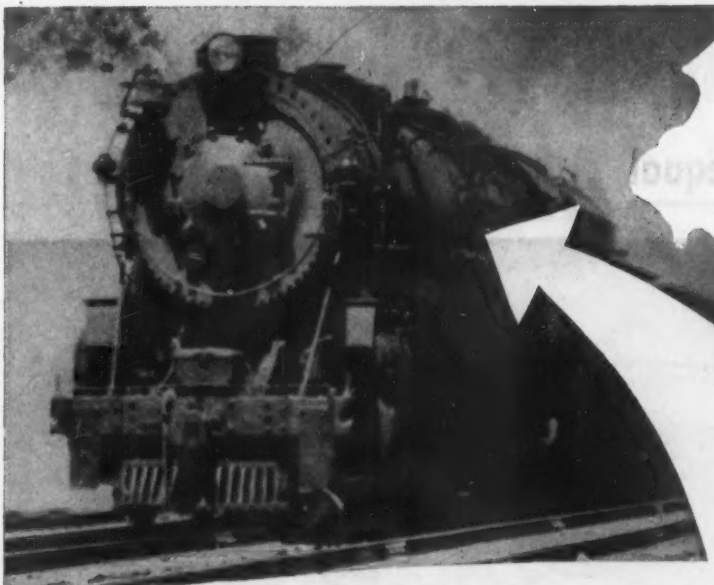
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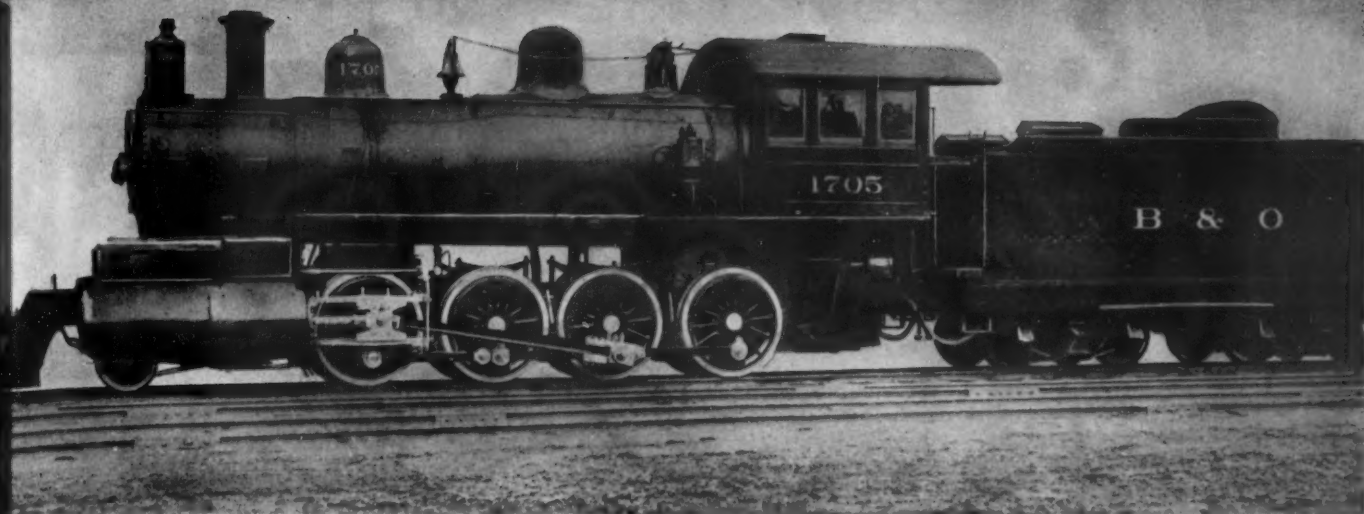
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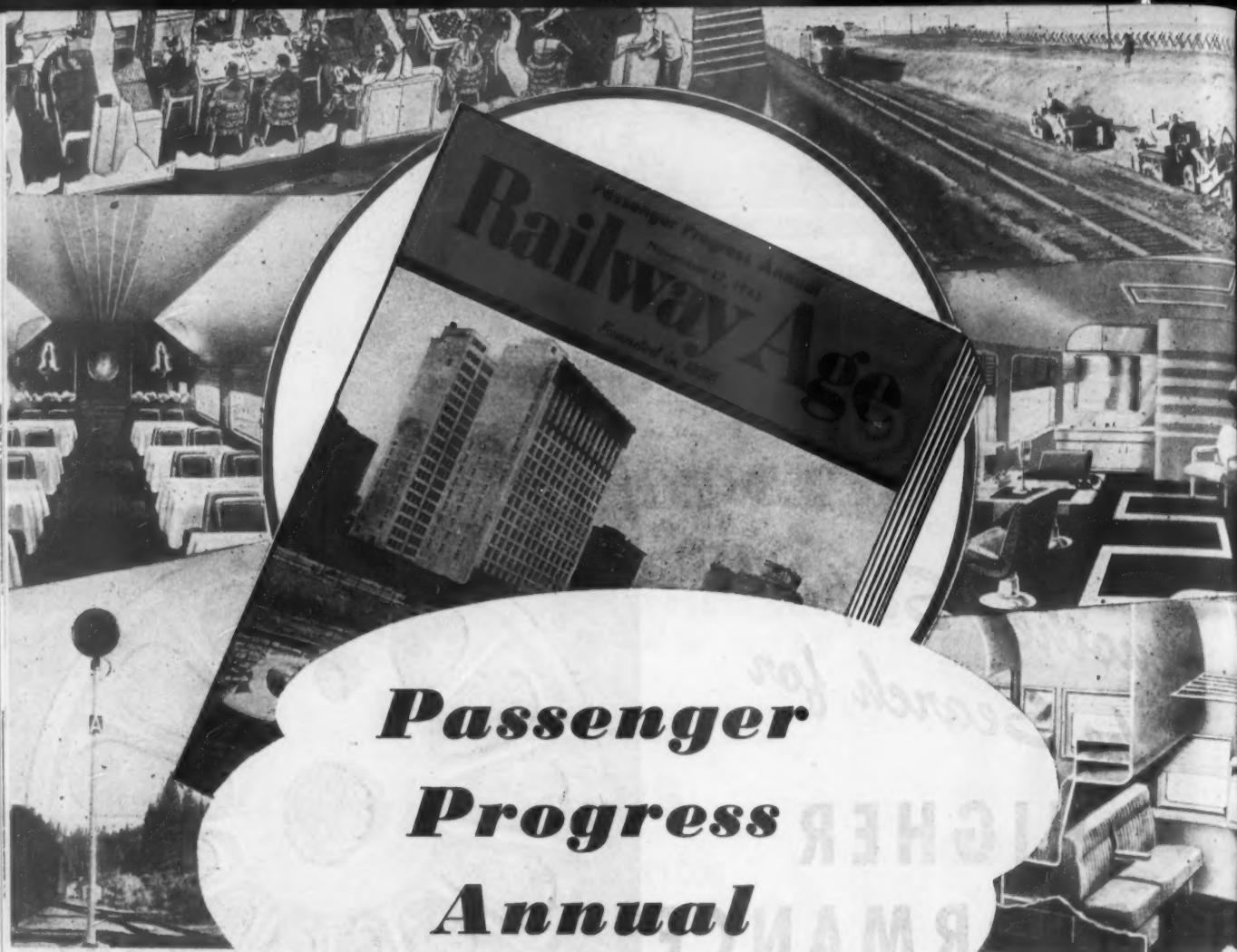


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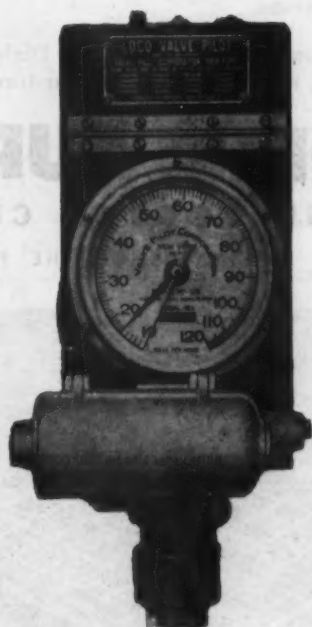
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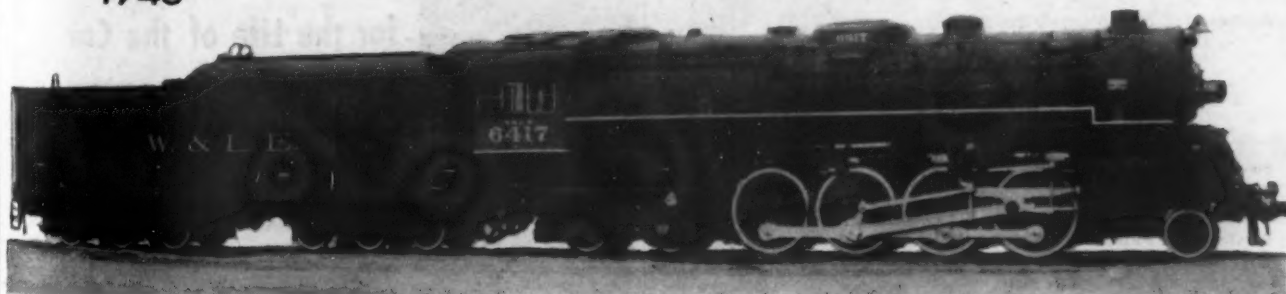


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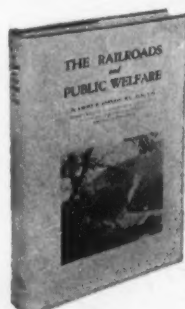
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*Professor Emeritus of Transportation and Commerce, Wharton  
School of Finance and Commerce, University of Pennsylvania*



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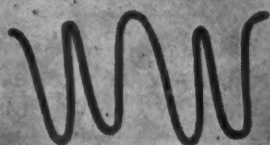
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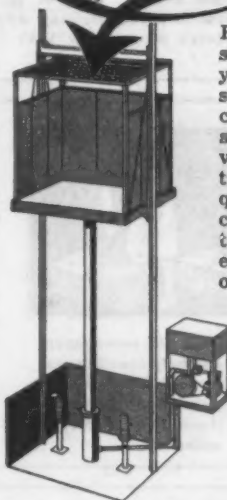
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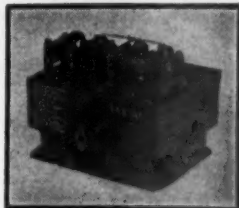
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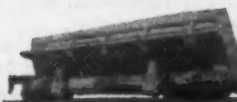
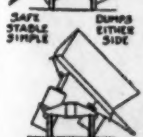
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